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MILLINERY MATERIALS

MATERIALS FOR SPRING AND SUMMER
MATERIALS FOR FALL AND WINTER
ALL-YEAR FABRICS
FLOWERS, GRASSES, FOLIAGE, AND FRUITS
FEATHER ORNAMENTS

WOMAN'S INSTITUTE
OF DOMESTIC ARTS AND SCIENCES
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PREFACE

Familiarity with the nature and uses of materials naturally precedes an intelligent use of them, and interest grows with a knowledge of their origin and preparation.

That the student of millinery may have ready access to information bearing on such subjects, this Volume has been prepared. It covers not only a fund of interesting information regarding the nature and source of the seasonal millinery fabrics but much specific material on their range and utility; then it branches into the realm of hat trimmings, discussing in detail manufactured and hand-made flowers, grasses, foliage, fruits, feathers, and feather-like trims.

Not a little of its usefulness to the professional milliner as well as to the woman who trims her own hats, lies in the complete and carefully illustrated directions for making many types of flower trims. These, with suitable suggestions for their use, make up a practical and valuable part of the Book.

One of the features of this volume which will aid both home and shop milliners is its commercial information. Buying need not be done blindly nor wastefully after these chapters have been studied, for the widths, colors, grades, and often the weaves of yardage are quoted, also the sizes, colors, and grades of commercial trims, such as flower and fruit clusters, bunches of foliage, and feather ornaments. Familiarity with these details is the first element of intelligent buying, one of the chief aids to economy.

For convenient reference, all material is classified according to seasonableness, texture, composition, or other outstanding features, and, wherever possible, alphabetical arrangement is employed, thus providing a ready means of obtaining information.

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CHAPTER I

MATERIALS FOR SPRING AND SUMMER

FAMILIARITY WITH THEIR NATURE AND USE

1. Importance of Knowledge of Materials.—Students of any subject are not regarded as thorough students until they acquaint themselves with the materials upon which they must work. And that acquaintance should go beyond merely a recognition at sight; it should extend to the nature, source, and uses of these materials. In the field of millinery, this knowledge enables the student to be intelligent enough about the nature of materials to determine what possibilities lie in them. Or, if a woman is buying materials to make into hats, it prepares her to talk intelligently about them and buy to advantage. Also, if a milliner is to use them for customers, such an understanding equips her to suggest uses in ways that are creative and indicative of her millinery art.

2. With the continual changes of style in millinery, new materials and methods of manipulating them are introduced, so it is necessary that all makers of hats should be constantly on the alert to observe the new, and often the renewed, things that appear each season. Good fashions in materials come again and again, slightly disguised, but they are in reality only a revival of something that has been used at another time. As in the case of shapes and designs, they reappear in fairly regular cycles, although sometimes under a new name. Therefore, so that you, as a student of millinery, can arrive at the best results, make yourself so familiar with the various materials that they become your servants. Numerous will be the ideas, then, that will suggest themselves for their use.

Some materials are naturally more suitable for one season than another, while others prove to be of such a nature as to be used

throughout the year. Materials are therefore classified here according to their seasonal use, being given as spring and summer, fall and winter, and all-year-round materials.

CLASSIFICATION AND ORIGIN

3. Classification.—Of the materials that are suitable for spring and summer hats, there are **braids** and **allover fabrics** of **natural straw,** including grasses and palms, of **natural hair,** or of **composition.** The composition materials may be of wood fiber or some gelatinous substance of secret process. Sometimes these classifications overlap, as in the case of braid that is essentially of fiber yet made to simulate the natural hair braid and serve in place of it.

Natural straw has always been, and still is, the basic element that enters into the construction of hats for spring and summer. Yet manufacturers are continually at work devising new combinations of substances for the market. Consequently, each season presents a profusion of increasingly popular composition braids and allovers that cannot fail in their appeal to feminine tastes.

4. Braids.—Narrow, flat tapes or woven strips, which are called **braids,** may be either imported or domestic. Originally, nearly all braids were of foreign make, but since 1917, when importation was made difficult by the World War, great progress has, of necessity, been made in the making of domestic products.

In general, *imported braids* consist of the natural straws and real hair braids that come from China, Japan, and Italy, where labor is cheap and the raw materials are found in large quantities. Some of these braids are plaited, or braided, plain, and others in fancy designs, both fine and rough; some are woven by hand, and others by machine.

In the class of *domestic braids*, come the fancy braids, which are created as novelties from season to season and for which the demand is not staple. Much of the raw material, however, that goes into these braids, is imported, the workmanship being the domestic element. Also, among domestic braids are some composition braids that are made by secret processes and consequently known to only certain manufacturers.

5. From China, particularly the provinces of Chihli, Shantung, Shansi, and Honan, come the so-called *Chinese staple straw braids*, including both plain and fancy weaves of the best quality of whole-straw, split-straw, and narrow piping braids.

When one considers that the Chinese have few factories and that their weaving is nearly all done at home, one marvels at the artistic results that are obtained. The numerous designs and patterns that come under the classification of Chinese fancy braids prove that the natives possess wonderful ingenuity. These designs are worked out by expert native weavers who, in many instances, are employed by foreign houses to originate new designs under the supervision of a foreign expert sent out to take charge of this branch of the business.

These braids, which are made of both split- and whole-straw, are plaited by hand, the number of strands being governed by the design wanted. Generally they are woven in 60-yard lengths. As to classification, they are named according to the number of their ends or for the place from which they come, while in addition, the manufacturer selects trade names intended to make them attractive for sale.

6. From Japan and Italy, respectively, also come braids of innumerable varieties known as the *Japanese* and *Italian fancy braids;* but both the Japanese and the Italians employ an easier method than the Chinese and utilize machinery for their weaving. The classification of these braids is made according to the same method as that used for classifying and naming the braids exported from China.

7. Hoods.—Practically all straw and a great many composition and hair braids are utilized for **hoods,** which, as the name implies, are cone-shaped, resembling a peaked hood. In the process of making hoods, the straw or other raw material is woven in various designs or woven first into braids and then spirally woven or machine-sewed into hoods. These are pressed over hot blocks, or dies, into all conceivable shapes, the style and size of the shape depending on the prevailing fashion.

8. Body Hats.—The term **body hats,** or **bodies,** is applied to one-piece hats consisting of crown and brim. These may be cut and manipulated into various styles or they may be blocked over hot dies into different types of hats. When they have the regulation

square crown and brim of even dimensions, they are called **flats,** one of the first kinds of hat. These flats, particularly when of leghorn, tuscan, or patent milan, are used chiefly for children's wear. When styles of coiffure do not require a large amount of hair, flats can be used for women's wear; at other times, their type of crown does not furnish room enough for the hair.

Whole- and split-straw bodies come exclusively from Japan, China, and Italy. From Italy come body hats of leghorn, Neapolitan, plain and fancy tuscan, fancy real hair and seven- and fifteen-end milan, known in Paris as picot. In the United States, milan hemp, pyroxylin, imitation hair, visca, raffia, and machine-woven split-straw are the principal materials used in body hats.

Many bodies are imported to the United States in hood form and the blocking and shaping is done here. This is especially true of the popular-priced ready-to-wear variety for both adults and children. These bodies come in hand- or machine-woven shingkee, English piping, Swiss milan hemp, fancy split china, milan hemp, and many other materials.

All European countries, together with North and South America and the islands of the Pacific and Atlantic, contribute not only to the varieties of materials, but also to the variations of design in weaving body hats. Each season, new designs are introduced and named after the towns or places in which they originate, as in the case of the Philippine body hats, which are perhaps the best known. No country in the world is so rich in fiber-producing plants as the Philippine Islands. Their buri-palm tree is one of the most useful, for, besides furnishing the natives with food and drink, it furnishes thatch and head-covering. These hats are light in weight, neat, and smart-looking, and take shaping and dyeing admirably.

9. Plaques.—If a hat is made in two pieces, it is made of two **plaques,** or **plateaux,** which are flat, circular sheets of narrow tape braid spirally sewed, one plaque for the crown and another for the brim. These are pressed into various shapes and styles between hydraulic presses. In this process, the brim and crown edges are often cut about 1 inch larger than the desired size, turned back on the under brim or inside crown, and machine-stitched by an attachment on the presses. Then the hats are treated with a coat of lacquer or sizing.

Plaques serve other purposes than that of making pressed shapes. They are used for making hand-made hats, facings in machine-sewed and hand-made fabric hats, and are equally practical for draping purposes.

10. Allovers.—Still another class of material in general use in the construction of hats for spring and summer wear is the yardage known in millinery as **allover material,** or **allovers.** Many of these types of yardage are made from the same raw materials as are the braids, but are uniform in weave and of usual yardage widths. Only those that are limited to hat making for spring and summer are described in this chapter.

NATURAL STRAWS

PREPARATION

11. Straw Culture.—Because natural straw holds so prominent a place in spring and summer millinery, it is well for the student of millinery to have a knowledge of the stages through which it passes and the processes which act upon it as it is developed into a form that can be worn.

Hat straws are grown principally in China, Japan, and Italy, where the soil seems particularly adapted to straw culture and the climate favorable. During the 18th century, when England was attempting to capture trade, a plan to carry carloads of Italian soil to Great Britain to raise straw there was discussed, but England has never been successful as a straw-raising country.

12. Straw braids are made from wheat, rye, and barley straws, grown for the purpose. In these grain-producing plants, the main axis or stem is hollow or tubular in form; and, as the stem matures, it throws off, at a distance of about every 6 or 8 inches, two shoots or branches which form a knuckle or joint similar to the joint in bamboo. As the stem reaches the head, or grain-producing part, the distance between these knuckles becomes shorter and the diameter of the stem diminishes.

After the straw is harvested, it is treated and dried by the natives and then, between the knuckles, cut into short lengths that average from 5 to 8 inches. In this form, the *whole-straw* is assorted and graded

by screening through a number of sieves, each one having different-sized holes. The straws are first placed in the sieve having the smallest holes and in gradual succession changed to those having the larger holes. In this primitive way, the strands are separated into grades according to their size. Then they are tied in bundles and are ready to be plaited or woven into straw braid.

13. Braid Industry.—When the strands of straw are woven into braid in their natural or tubular form, the braid is called *whole-straw braid*, but when they are split, or stripped, into several pieces and then plaited, the resulting braid is called *split-straw braid*, a very popular variety in this country. The number of strands, also called *ends*, used in plaiting, depends on the kind, pattern, or style of braid made. The staple braid requires from three to seven strands and the rougher braid from eight to eighteen strands and sometimes more. When the braid is narrow and flat, it is called *tape braid;* when both edges are alike, it forms *insertion braid;* and when it resembles piping, with perhaps a fancy edge that stands out, it is called *piping braid.*

14. In China, practically all of the weaving is hand-done by the natives; also, in Japan, much braid is hand-woven; but in Germany, France, Italy, Switzerland, England, Belgium, and the United States, where the braid industry is well organized under systematic conditions, modern machinery has practically supplanted hand-plaiting.

On account of the cheap labor conditions in Japan and China, the straw industry is more or less controlled by the contractors or dealers, and the method employed in conducting the business is rather unusual. In Japan, the greater part of the straw braid produced is sold or contracted for before it is made, so the buyer is able to obtain straw braid in any width or pattern desired. In China, the condition is just the reverse; that is, the straw braid is made up in bales, assorted in different widths and qualities, and then sold to the dealer.

15. While the straws from both of these countries are similar, the Japanese straws are not so strong, durable, nor superior as are the Chinese straws, and, with the exception of hemp, they are easily distinguished from Chinese straws by their bright color and high luster, qualities that are caused by the climatic conditions of the country.

The braids of both countries are very brittle and easily broken, as they possess the qualities of any natural straw. They are, however, among the best known and most used of braids, because they take dye easily and can be exported at lower prices than braids from countries where the cost of production is greater.

16. Weaving Straw Hats.—Through history, literature, and art, definite facts are established concerning the plaiting of straw into hats for both men and women. One of the earliest references is made to straw and wicker hats made by peasant women in France during the 13th century. These hats were sold on regular market days together with eggs, onions, and other rural products. By the end of the 14th century, accounts show that straw hats, dyed, faced, and elaborately lined, featured largely among the luxuries in France. Later, in 1652, during the revolt against tyranny, they reached political importance, also again in 1799, when flowers, tassels, and aigrettes, as well as hats, were made of straw. Some of these hats were made of alternate rows of plain and open-work braid and trimmed with wheat.

In England, although straw hats were referred to in the middle of the 15th century, it is generally believed that the industry was not established until the time of Mary, Queen of Scots, 1542 to 1587. After seeing the straw plaiters happily at work in France, she offered this occupation to her own subjects, and so the first British straw-makers' colony on Scottish soil was founded. Her son, James I, between 1603 and 1625, established the first English colony near Luton, which is still the center of the trade in Great Britain.

In the United States, in 1685, a Quaker, living in the territory that later became Pennsylvania and New Jersey, showed his keen eye to trade by advocating the establishment of schools for girls to learn the making of straw hats. This proposition did not materialize until 1824, and then in Baltimore, where the first straw-plaiting school in the world was established. Some twenty-five years before, however, in 1799, in Dedham, Mass., the first straw bonnet in America was made by Miss Betty Metcalf. This bonnet was made from seven-strand oat straw, which she herself had woven.

17. Since early times, the industry has spread and improved so that nothing is impossible in this branch of the trade. Both hand-made and machine-sewed hats are now far superior to those manu-

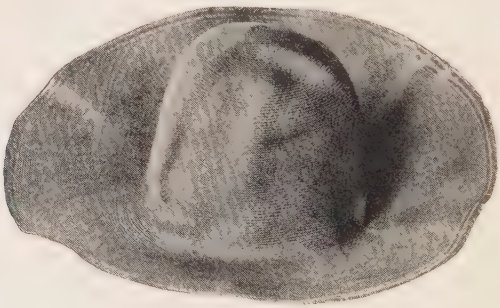
factured only a few decades ago. The new loom attachments have had their effect and the improved methods of bleaching and dyeing also have played their part. Even China and Japan, the countries still laboring under inconveniences and crude methods, have made remarkable progress in straw weaving in the past twenty years.

18. Styles of Braids.—Since the weaving and widths of braids of straws and grasses are governed by the prevailing fashion, and since these vary extensively each season, it would be impossible to show the complete assortment of braids in their various widths and designs. However, the names of the staple hand-made braids are given here. These have been chosen with a view to forming a collection that includes those braids in most frequent use, both in hand-made and in manufactured hats. In many cases, an entire hat is pictured so as to give an idea of how the braid looks when developed and to increase familiarity with straw bodies.

All braids and hats are arranged in alphabetical order so that you may easily refer to them at any time.

VARIETIES

19. Balibuntal.—A Balibuntal body is a Philippine product woven from the midribs of the native buri palm and is considered the finest grade of this type of hat. These bodies are woven in



Balibuntal Hat
FIG. 1

the homes of the natives, who, since time immemorial, have preferred to keep their hat-making as a household industry and work it in between their agricultural and domestic duties. Because of the individual character of this development, great variety of output has resulted. These bodies are woven under water to

keep the straws pliable, and appear in their original unblocked form, as in Fig. 1. In this form, they are imported to the United States, where they are blocked in any shape desired, and form the most expensive and the choicest of Philippine hats.

Baliluk Hat
FIG. 2

20. Baliluk.—The Baliluk body, woven in the city of that name, is another Philippine product made from the buri palm. It is similar in weave and texture to the Balibuntal, but of not quite such high quality. Like other Philippine bodies, it is imported to the United States, where it is blocked. An example of a finished Baliluk hat is shown in Fig. 2.

21. Baliwag.—The term Baliwag is a trade name derived from Baliuag, a town in the Philippines noted for the manufacture of bamboo hats and native fiber goods. The Baliwag shown in Fig. 3 is made from bamboo in imitation of the more expensive Balibuntal. It is hand-woven into body hats and then pressed into shape. The straw of which this hat is made is sometimes familiarly referred to as *grosgrain straw* since its weave is similar to that of grosgrain, and the finished hat is sometimes called the *Manila hat*.

Baliwag Hat
FIG. 3

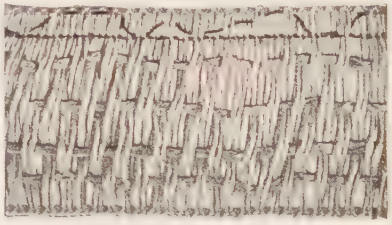
22. Bangkok.—The Bangkok, named after the capital of Siam, is a very high-grade hat, never found in cheap lines. It is made from the palm leaf of the buri tree, which is the same raw material as is used in making the national headgear of Siam. Considerable dexterity is required to obtain the fibers from the cut stems; therefore, practiced strippers are engaged for this delicate

task. The weaving is done under water. The natural color of Bangkok is a deep cream or ecru, but it can be bleached a pure white or dyed any color readily.

Bangkok Hat
FIG. 4

Women like to wear Bangkoks because they are light in weight and comfortable on the head, neat and smart-looking, and they take shaping and dyeing well. The pressed Bangkok illustrated in Fig. 4, is made from a hand-woven hood, and has a cushion binding of woven hemp on the edge.

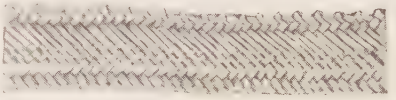
23. Barn-Yard Straws.—The term barn-yard straw covers a variety of flexible fancy straws exported from China and Japan. They are woven into one- and two-piece body hats and in braid forms of various designs. One style of barn-yard straw braid is shown in Fig. 5. The novelty weaves or lacy effects are often used as substitutes for real tuscan. Also, they are often used in combination with other straws



Barn-Yard Straw Braid
FIG. 5

24. Belgian Split-Straw Braid.—As the name indicates, Belgian split-straw braid, Fig. 6, is made in Belgium of natural split-straw. It is a glossy braid, plaited so as to form a braid $\frac{1}{4}$ inch wide, and is used principally in the manufacturing of machine-sewed hats and regulation sailors. When used for hand sewing, three or four of the strands are machine sewed together and bound in bolts that measure 10 yards in length.

Belgian Split Braid
FIG. 6



Chanko Braid
FIG. 7

China Eight-End Whole-Straw Braid
FIG. 8

25. Chanko.—Among the China fancy braids, there is Chanko, an inch-wide, split-straw braid of high satin sheen, as shown in Fig. 7. This is one of the grassy types of braid that has several uses. It can be hand-woven into braids that are machine-sewed spirally into cone-shaped hoods to be pressed by hydraulic presses into any shape of body. Also, it is woven in mat form; that is, the weaving is started at the center and progresses in all directions to form a flat mat that can be shaped down over a block. In addition, it is imported to Italy where it is stripped and woven into braids and hats similar to milan, but having more of a natural gloss.

China Whole-Straw Hat
FIG. 9

26. China Eight-End Whole-Straw Fancy.—The China eight-end whole-straw fancy shown in Fig. 8 is made of eight strands of whole-straw plaited in a novel design, and is used for both machine-sewed and hand-made hats.

In Fig. 9 is shown a body hat made of a China whole-straw braid woven into a hood and pressed into a broad-of-sides, narrow-front-and-back, one-piece shape.

27. China Milan.—The name China milan is given to the *seven-end split braid* shown in Fig. 10, a product of Shantung. It is woven in a way similar to the China split, Fig. 11, but is of a finer quality. It costs about two-thirds the price of patent milan, Fig. 29, another Chinese product. It is used in the manufacture of body hats.

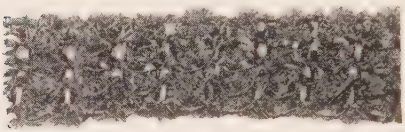
China Milan Braid
FIG. 10

China Seven-End Split Braid
FIG. 11

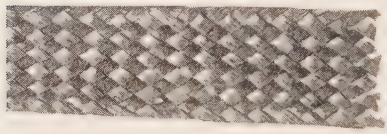
28. China Split.—Among the plain China braids, the China split, also called *seven-end split plain*, shown in Fig. 11, is the most popular. It comes in extra, first, second, and third quality, the extra being seldom in the market because the supply is generally contracted for previous to production.

29. Chip Braid.—Among braids of all types, chip braid, which is made of wood shavings, is one of the oldest, having been used in Italy for hats since the year 1500. This braid is brittle, breaks easily, and is a very inferior grade of straw braid. Although it can be bleached a pure white, it burns readily in the sun and, therefore, is not durable.

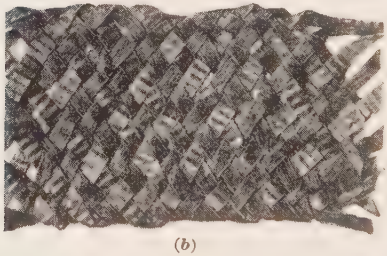
30. Chrysanthemum Braid.—The foundation of the braid shown in Fig. 12 is wood fiber woven in rope fashion with cut ends, producing a fuzzy effect. This rope comes in several different sizes and can be used solid or combined with visca in the making of braids, plateaux, and body hats. In the illustration, a strand of visca is interwoven with a rope of chrysanthemum braid, resulting in a braid of loose, brushy appearance.



Chrysanthemum Braid
FIG. 12



(*a*)
Italian Combination Braid



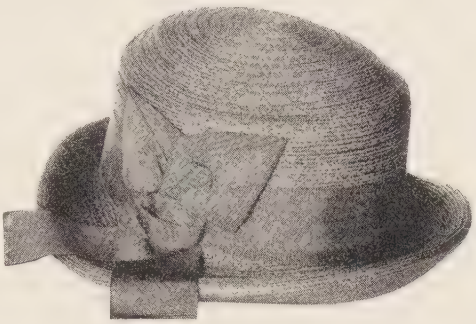
(*b*)
Italian Combination Braid
FIG. 13

31. Combination Braid, Two examples of *thirteen-end split-straw braid* of Italian make are shown in Fig. 13 (*a*) and (*b*). They are called a combination braid because they are woven of two different kinds of split-straw, one with a lustrous and the other with a dull finish. Before weaving, the lustrous strands are fluted.

This type of braid is woven with both edges finished alike, forming an insertion braid. The one at (*a*) is $1\frac{1}{2}$ inches wide and used for one-piece body hats; that shown in (*b*) is wider and is especially good for draping turbans and for trimming purposes.

32. Cuban Braid.—Under the name of Cuban braid is sold a transparent braid of very uneven texture made of tough, stringy fibers similar to hemp. It is introduced at different seasons in combination with other braids.

33. Hemp Braids.—There are many varieties of hemp braids, varying according to the kinds of hemp of which they are made and the manner of weaving. Sisal, Manila, Cuba, hibiscus, and Baden, a superior hand-stripped hemp, are among those that furnish millinery materials. The hemp is stripped, dyed, and woven, plain or fancy, by skilled workmen into hoods, which are exported to countries equipped for manufacturing them into blocked shapes. These shapes may be either one- or two-piece, and come in solid or variegated colors.



Milan-Hemp Hat
FIG. 14

34. *Domestic milan hemp*, chiefly used for machine-sewed hats, is similar to patent milan, but is more pliable because of the softness of the hemp thread. This hemp, although imported from Manila, is classified as a manufactured domestic braid.

The production of domestic milan hemp is enormous, for it is in constant use. It is light in weight, supple, and durable, and is indispensable as a facing in rough-straw sailors, in children's ready-to-wear hats, in plateaux, and as woven bindings for fabric hats. An entire milan-hemp hat is illustrated in Fig. 14. It has a cushion brim and is trimmed with a tailored bow, making a very serviceable school or sports hat. This type is introduced almost every season.

Loom-Woven Hemp Braid
FIG. 15

Japanese Hemp Tape Braid
FIG. 16

35. Pictured in Fig. 15 is a *1-inch-wide, loom-woven, hemp braid* that is used for facing fabric hats and for binding summer felt hats and the natural rough straws that are used at different times for sports wear. One of the loom-woven hemps that is in vogue from time to time is a *granite hemp*, so called because of its pebbly surface.

36. The hemp used in Japan is imported from Manila, selected and knotted, or joined together in one continuous thread, and woven on looms. This hemp is used alone or in combination with Japanese natural straw. One example is the *Japanese hemp tape braid* shown in Fig. 16. This is a flat braid, containing thirteen strands, each of these composed of three ends.

Hand-Crocheted Hat of Japanese Hemp
FIG. 17

37. The novelty *Japanese hemp hat* shown in Fig. 17 is made from a hand-crocheted hood of a selected grade of Manila hemp, hand-crocheted from a single strand of the variegated-color hemp, commonly called *heather mixture*.

38. The hemp hat shown in Fig. 18 is a product of *Philippine hemp*. Made by hand by the most skilful workmen, this hat features a novel combination of color and design. It is an excellent type of sports or beach hat.

39. Italian Fancy.—One example of Italian fancy braid is shown in Fig. 19. This particular piece is woven of soft, pliable, split-straw, but there are many coarser types for which Italy is noted.

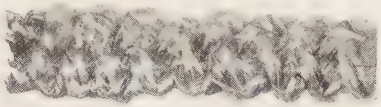
Hat of Philippine Hemp
FIG. 18

40. Japanese Fancy. The type of Japanese fancy braid shown in Fig. 20 is made of an extra grade of pliable whole-straw with one edge woven in novel design. It is used for hand-sewing and manufacturing purposes.

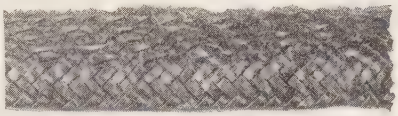
41. Japanese, Five-End, Fancy Split-Rustic.—Illustrated in Fig. 21 is a Japanese rustic braid plaited with five strands of split-

straw, two of the strands being twisted in plaiting so as to produce the scallop along one edge. This straw is woven into one-piece body hats, commonly called *chain-braid flats*.

42. Japanese Four-End Split-Rustic.—The Japanese braid shown in Fig. 22 is evenly plaited with four strands of split-straw that form a braid $\frac{3}{4}$ inch wide. This braid can be dyed any color, and is used for making inexpensive machine-sewed body hats.

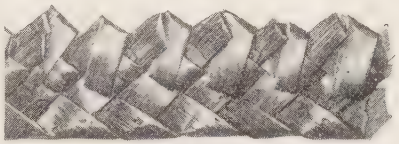


Italian Fancy Braid
FIG. 19

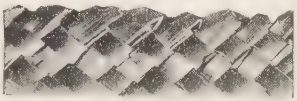


Japanese Fancy Braid
FIG. 20

43. Java Bondol.—In nearly all countries, there are hoods and plateaux made by the natives from the domestic grasses. For example, there is the Java hat, similar to the Baliluk shown in Fig. 2. It is woven of a native Bondol grass. Java hats come in several different colors and intricate and pleasing weaves. As the native labor is cheap, they can be imported into this country at a very small cost. They make desirable school hats for children, and light-weight garden hats for grown-ups.



Japanese Five-End Split-Rustic Braid
FIG. 21



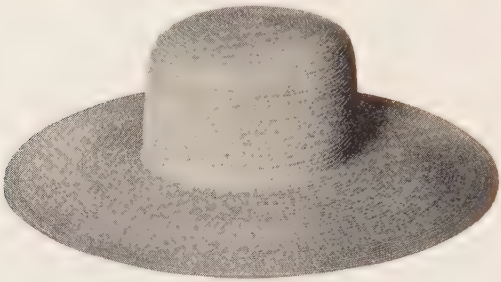
Japanese Four-End Split-Rustic Braid
FIG. 22

Leghorn Braid
FIG. 23

44. Leghorn.—The very popular leghorn, which is named after a province in Tuscany, Italy, is made of a combination of wheat and barley. It is distinguished by its slenderness and pearly white color, and, as shown in Fig. 23, is woven in a braid, $\frac{1}{2}$ inch wide, with a cord along one edge.

Although this straw is used at different times for binding, finishing, hand sewing, and scroll effects on fabric hats, it is used principally in the making of body hats. When used for this purpose, it is woven spirally with one row interweaving the preceding row over

the cord, as in the case of the leghorn flat shown in Fig. 24. These flats are pressed over hydraulic presses, the real straw having an even plaiting and a dull finish, the imitation, or domestic kind, being very flat and shiny.



Leghorn Flat
FIG. 24

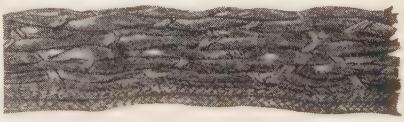
Leghorn is made also into two-piece hats and pressed into various styles and shapes. For a two-piece hat, the braid is woven spirally into plateaux—one for the crown and another for the brim being necessary for each hat. Another use for leghorn plaques is in the construction of hand-made hats. In this form they possess infinite variety.

45. Liséré.—The braid shown in Fig. 25 is an Italian-French braid of high luster, woven of natural split-straw into a $\frac{1}{4}$-inch width. It takes its name from the finish, *liséré*, meaning striped. When this braid is used in hand-made hats, several rows are machine-stitched together, as shown, and sold in bundles of 20 and 30 yards each. Because this braid is stiff, it is necessary, when sewing it, to keep it thoroughly saturated in order to make it turn or curve.

Single strands of liséré are very often used as a piping or finishing braid.

46. Luster Lemonade Braid.—The Japanese braid shown in Fig. 26 is made of twisted strands of split braid, tubular in effect, laid in parallel rows and interwoven with hemp thread. In the sewing of the braid, each hemp strip is covered by the one following.

Liséré Braid
FIG. 25

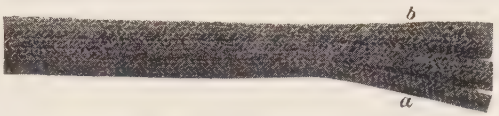


Luster Lemonade Braid
FIG. 26

47. Milan.—Of the milan braids, which take their name from the city of Milan, there are several grades, both real and patent. Although they vary somewhat in size and quality, milan braids are all very fine, light in weight, supple, durable, and consequently used for making the finest of machine-sewed hats.

The luster that they have is furnished mostly by finishing processes.

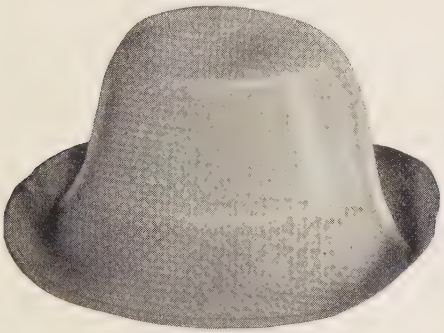
Seven-end milan, which is called *picot* in Paris, is the finest grade produced. Fig. 27 shows five strands of this sewed together. One end is ripped open to show one strand made of seven ends, as at *a*. This single strand is used for scrolling of fabric hats and two strands sewed together, as at *b*, are used for piping and finishing purposes.



Seven-End Milan Braid
Fig. 27

When Fashion decrees milan to be used in the construction of hand-sewed hats, the manufacturers, in order to save time in the sewing, have several rows, usually about five, machine-stitched together, producing a braid $\frac{1}{2}$ inch wide, as shown. The sewing together of these braids is done with a chain-stitch machine, which makes it possible for the braid to be easily ripped and shaped as desired.

48. Manila.—After the nature of real Panama, many imitations are manufactured. Some of these are made from Manila hemp, from which Manila hats take their name, and others are made from bamboo. These imitation panamas are classed as inexpensive imported Manila bodies, the majority of them coming from the Philippines.



Panama Hat
Fig. 28

49. Ningpo.—The Ningpo body hat, similar to the Java, is hand-woven of the rush grass that grows wild in China. Many novel open-work designs are introduced, and often two or more colors are combined in a plaid design.

50. Panama.—The hat shown in Fig. 28 is hand-woven of fine straw and termed Panama hat, or panama, because the city of that name is the principal source of the braid.

Panama braid is made from the leaves of the screw pine in South America. The green leaves of the tree are gathered by the natives before they unfold, and after the ridges and coarse veins have been removed, the leaves are cut into shreds. These are exposed to the sun a few days and then immersed in boiling water until they become practically white, when they are put in the shade for several days and bleached further.

A native can plait enough straw for a hat in two or three days, but it takes several weeks to complete the finest hats, because they require special care in the selection of the straw and because, during the process of weaving, the straw must be kept constantly under water.

Patent Milan Hat
FIG. 29

51. There are *imitation Panama* hats imported from South America, Formosa, and Cuba, which closely resemble real panamas, but are of a coarser weave and higher gloss. They are not so expensive; therefore, much in demand. Other imitations are classed under peanit braid and manila.

52. Patent Milan. Imitation, or patent, milan, which is shown in the blocked hat in Fig. 29, is sometimes known as *seven-end Laichow mottled*, because, although manufactured in Italy, it is a product of Laichow, China. For machine-sewed blocked hats, it is one of the most popular straw braids. It comes in several grades—extra quality, first, second, and third, or dyers' quality. The extra quality is hard to obtain, as the supply is limited and the braid is in great demand. As it acts as a substitute for milan hemp, it is used for facing rough-straw sailors, as woven bindings for fabric hats, and for plateaux and children's ready-to-wear hats.

53. Peanit Braid.—The braid that is sold under the trade name of peanit braid comes in several grades of whole- and split-straw and grasses, but even the best grade is inexpensive, since it is likely to be made of odds and ends, left over after the weaving of

the better grades of braids. Any country growing natural straws produces peanit braid. It comes in strands that are woven into sports hats in imitation of Panama hats. The model in Fig. 30 illustrates a child's peanit-straw hat, bound and banded with grosgrain ribbon, but such hats, with different trims, are used by grown-ups as well.

Peanit-Straw Hat
FIG. 30

54. Pedaline Braid. Soft Chanko straws imported to Italy and woven like milan are known as pedaline braid. They are grassy braids that have a high satin sheen much more pronounced than that of milan. Otherwise, they have the same characteristics—fineness, lightness in weight, pliability, and durability—and their uses are the same as those of milan. One of the most important features of pedaline is that it can be bleached into a pure white.

55. Piping Straws.—The *five-* to *nine-end split piping braid*, one type of which is shown in Fig. 31, comes in three different grades, the assorted extra, first, and second qualities. These piping braids are manufactured from the staple braids exported from China to other countries. They are used chiefly in the manufacturing of machine-sewed hoods or bodies, sometimes combined with felt or other material, and are afterwards pressed over hot blocks into various shapes and classed as ready-pressed hats.

Single strands of *liséré braid* are often used as a piping or finishing braid on fabric hats, for scrolled designs, and for embroidery work. Also, there is an *Italian* piping that is made of soft, pliable split-straw and hand- and machine-woven into fancy body hats in mat form.

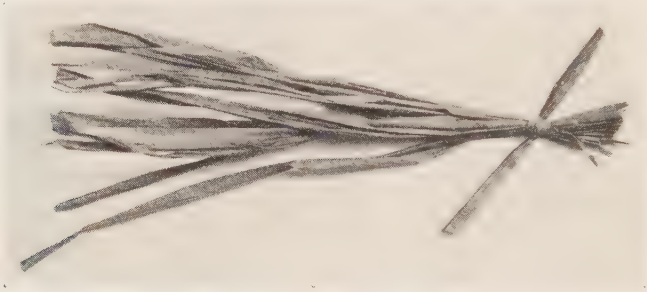
Piping-Straw Braid
FIG. 31

56. Raffia.—The popular raffia, illustrated in Fig. 32, is made of a tough, pliable wood fiber, imported from Madagascar. It comes in a dull straw color, but can be successfully dyed any color. On account of its tough and pliable qualities, it is in constant use, not only in plain but in fancy effects, many novel open-work pat-

terns being produced by crocheting it, machine- and hand-weaving it, and also by using it for embroidering on various materials.

Raffia hats may be either stiff or flexible. During the process of pressing raffia bodies into various shapes, they are treated to a coat of sizing, or lacquer, to make them stiff, when such a quality is desirable. For the flexible type, raffia combines well with visca, felt stripping, angora, cellophane, and hemp.

57. Popular among sports materials is *raffia bast*, which is made from the tough, inner, fibrous bark of various trees, especially the lime. The Viennese have experimented with this braid until



Raffia
FIG. 32

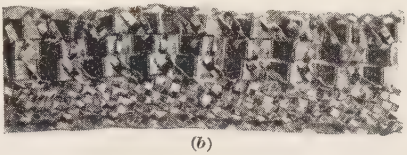
they have found processes by which it can be made fast in color, a desirable quality for seaside wear. Even shaded threads are dyed to give ombré effects.

In some models, the fibers are twisted to form firm threads, which are crocheted in either loose or tight stitches. In the latter way, solid and hard-wearing hats are produced, often in stripe and block patterns. In other models, the bast is used to embroider, in a flat allover stitch, canvas or firm net foundations. These hats are soft and pliable, and have almost no weight.

58. Ramie.—Two examples of a coarse, Chinese, heavy braid called ramie are illustrated in Fig. 33. This type of braid is made of a strong durable fiber from the stem of a Chinese plant that resembles nettles. It is bright and silky and closely resembles visca, although it is not so glossy. It is hand-plaited into braids for hand-sewed hats or hand-woven into hoods for body hats. View (*a*) illustrates *plain ramie*, while view (*b*) illustrates *novelty ramie*.

59. Rising Braid.—The term rising braid is applied to a flat braid manufactured in Italy of China straw of natural color. It is less than 1 inch wide and is used for binding frames and preparing foundations, but never for a hat. It is similar to band willow, but a trifle more pliable.

(*a*)
Plain Ramie Braid



(*b*)
Novelty Ramie Braid
FIG. 33

60. Rustic Braids.—When braids are correctly termed rustic, they are of natural straw, either whole- or large-strand split-straw, which makes a stiff and somewhat coarse braid. Although they are not of the fine varieties, they are of good quality and come in many attractive designs. They are made in all countries where the natural straw is grown.

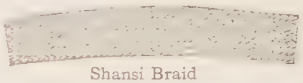
Satin Jap Braid
FIG. 34

61. Satin Jap.—The light, lustrous, Japanese, split-straw braid known as satin Jap and shown in Fig. 34, is a hand-woven braid much used in hat making. Although it is used somewhat for hand-sewed hats, its chief use is for making machine-sewed bodies that are afterwards blocked into the regulation ready-made sailors and known to the trade as *banded tailored hats*.

Sailor of Sennit Braid
FIG. 35

62. Sennit Braid.—The term Sennit braid is the trade name for a Japanese split-straw braid made from four-end split-rustic. This braid is sometimes called a *sawtooth-straw braid*. It is used entirely for straight-brim, banded, machine-made sailors for women, as shown in Fig. 35, as well as for sailors for men.

63. Shansi.—The Chinese braid shown in Fig. 36 is a very popular split-straw braid. It is brilliant white, pliable, and uniformly woven or plaited of seven ends. In weave and width, this braid is quite similar to milan; but it is a little lighter in weight, and in the bleaching it is bleached to a pure white, while milan is cream in color. When used for hand sewing, four strands are machine sewed together, as shown here.



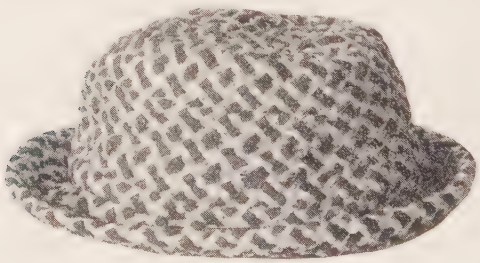
Shansi Braid
FIG. 36

Shingkee Braid
FIG. 37

64. Shingkee.—Another Chinese braid named for the place from which it comes is shingkee braid, an example of which is shown in Fig. 37. This is the highest-priced, whole-straw fancy braid, brilliant white, firm, and very regularly plaited. The whole-straw may be split into six, seven, or nine strands and woven into a piping braid similar to China milan.

The hat illustrated in Fig. 38 shows how shingkee can be used in combination with other material, in this case felt stripping. These two materials are first woven into a 1-inch-wide braid, and this is woven together with a strand of the shingkee, the brim being continued in to form a cushion-brim effect, as shown. Although this is a Chinese braid, these hats are manufactured in Switzerland.

65. Slipper Braid.—Illustrated in Fig. 39 is another lustrous Japanese braid, very similar to, and interchangeable with, lemonade luster braid. It is woven by laying several strands of whole-straw parallel and interwinding a strip of split-straw with them. In the sewing of this braid, the strips run vertical, thus giving the finished hat a solid, tubular effect.



Hat of Shingkee and Felt Stripping
FIG. 38

66. Sisal Straw.—In imitation of Panama, China produces a hand-woven straw braid known by the trade name sisal straw. This is twine color and rather rough, but it is sufficiently pliable so that the bodies made from it can achieve all the smart drapes.

67. Tagal Braid.—The braid shown in Fig. 40, which takes its name from Tagal, the capital of Java, is a $\frac{1}{2}$-inch-wide tape braid loosely woven of Java wood fiber. This type of braid is very light in weight, soft, and pliable, and takes the dye readily. It can be hand-woven spirally into plaques or plateaux with a single strand of the fiber, as shown in Fig. 41, or machine sewed like hemp braid. These plaques are used in the construction of hand-made hats, for facings of brims and crown edges in rough braid sailors, and for draping purposes. They are used also for making blocked or pressed shapes, either in one or in two pieces. When used for this purpose, they require a coat of sizing or shellac in order to make them retain their shape.

Sipper Braid
FIG. 39

Tagal Braid
FIG. 40

68. *Tagal banding*, which is made in the same manner as tagal braid, comes in strips 3 yards long and from 5 to 9 inches wide. This banding, as well as the braid, can be dyed in all colors, and, therefore, is very desirable when light colors are in vogue.

Tagal Plateau
FIG. 41

69. Timbo Braid. Another fiber braid, timbo, is loosely woven and is made from the soft red wood of the mimosaceous tree, which grows in South America. It is woven chiefly into $\frac{1}{2}$-inch-wide tape braid like tagal, then, with a strand of the fiber, machine woven into plateaux for facings, also into one- and two-piece body hats. It differs from tagal inasmuch

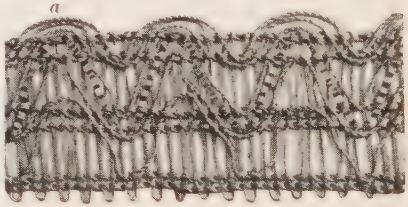
as it has a looser, somewhat lacy weave and is of a firmer and more durable nature.

Timbo Novelty Braid Hat
FIG. 42

The timbo hat illustrated in Fig. 42 is a pressed two-piece shape of timbo novelty braid, machine-sewed. The braid is the regulation $\frac{1}{2}$-inch width, but in the weaving a crinkly, or pebbly, effect is introduced. When machine-sewed and pressed, this braid is quite novel in appearance.

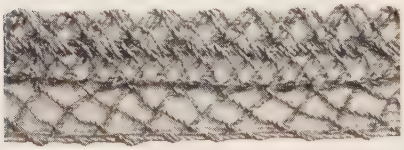
70. Tuscan Braid.—One of the finest of imported Italian braids is known as tuscan. It is made of fine, yellow, wheat straw, a product of Tuscany, from which it derives its name. It is woven in a plain, solid braid, similar to leghorn, and is used in making machine-sewed body hats and plateaux.

Tuscan is also used in fancy or lacy effects. The strands are twisted into a firm cord, as shown at *a*, Fig. 43, and then woven into braids of widths from $\frac{1}{2}$ to 5 inches and into allover fabric for draping purposes.



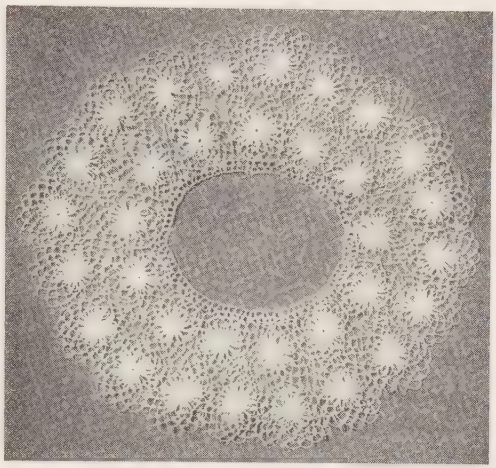
Tuscan-and-Cotton Braid
FIG. 43

71. Tuscan is also used in combination with hair or cotton or hemp thread, one of these being used as a foundation and the tuscan scrolled in a design over it. In the *tuscan-and-cotton-combination braid* shown in Fig. 43, the cotton-thread foundation shows in the vertical lines and the horizontal rows of chain-stitching, while the tuscan cord forms the scalloped edge and the zigzag pattern. In the *tuscan - and - hair - combination braid* shown in Fig. 44, the tuscan cords are interwoven with the plain hair braid, and are twisted and turned so as to form an extra heavy finish on the edge.



Tuscan-and-Hair Braid
FIG. 44

72. The *tuscan novelty brim* in daisy pattern and chain-stitch effect, shown in Fig. 45, is hand-woven entirely of tuscan cord by the natives of Italy. It may be used for a transparent brim or over a solid foundation, whichever method Fashion decrees. Body hats in one and two pieces are also woven and hand-crocheted of fine tuscan cords.



Tuscan Novelty Brim
FIG. 45

73. Wenchow.—The Wenchow body, shown in Fig. 46, is made of Chinese grass, woven in mat form and pressed into the present form of one-piece body. It comes in a dull finish, but can be dyed any color. It is wiry and light in weight, and because of its many possibilities, it makes a desirable sports hat.

Wenchow Hat
FIG. 46

Yeddo Braid
FIG. 47

74. Yeddo.—The term yeddo, which is a former name for Tokyo, is the name of the Japanese braid shown in Fig. 47. It it a cheap braid made from the strippings of split-straw, and has a twisted strand along one edge. This braid, which is both a foreign and a domestic product and comes in several grades, is sometimes woven into plateaux and body hats. The braid illustrated is the regulation, or 1-inch, width, and is sold in bolts of 10 yards or in bundles. It comes in all colors.

COMPOSITION BRAIDS

MANUFACTURE

75. Progress.—Composition braids are manufactured on specially constructed looms, until recently known only to the countries of Europe, France in particular. But for some time the manufacture of braids, especially the machine-woven fiber or composition kinds, has been increasing in the United States.

During the World War, the greater part of the straw braid exported from China and Japan came to the United States, New York and Chicago being the principal distributing points. This gave great impetus to the home manufacturing plants, which have, ever since the war, been able not only to hold their own, but to increase their efficiency.

Another important reason for the manufacture of composition in the United States is its close connection with the manufacture of artificial silk. The same raw materials are used, also the same methods until the point of fabrication.

76. Raw Materials and Processing.—The chief raw material that goes into composition braids is a pure wood pulp, treated first with caustic soda and carbon bisulphite. The result is a

Bolt of Composition Braid
FIG. 48

transparent fluid not unlike collodium. It is brought into contact with certain salts and acids by passing through slit-like apertures into these coagulation baths, where it solidifies in the form of sheets. Next, it is treated chemically to eliminate all foreign matter; then it is washed, dried, and rolled.

The dyeing, which constitutes the next step, is done easily by passing the sheets through vats containing the dye bath. After they have taken the desired color, the sheets are dried on machines

having heated rollers. Other machines give them their pattern. These consist of two cylinders, one of which, hollow and made of steel, is engraved after a given pattern, and the other is covered with heavy paper. When the sheets are going through these embossing machines, the rollers are heated so as to imprint the design firmly.

When the composition is to be made into braids, the rolls, or bobbins, are cut into strips about $3\frac{1}{2}$ inches wide, and then these are cut the desired width by being fed into little machines that cut, twist, and roll simultaneously. Both foreign and domestic products are bound in bolts of 10 yards each, as shown in Fig. 48.

77. Styles.—In the manufacture of composition braids, as in the case of all other braids, the style of weaving and the color are governed by the prevailing fashion. During some seasons, novelty and fancy weaves are in vogue, while at other times decidedly plain and evenly woven braids are used.

The varieties that follow are the most popular and satisfactory braids that are made from wood and vegetable fibers and chemical substances.

VARIETIES

78. Cellophane.—The term cellophane is a French trade name for braids, allover fabrics, and other materials that have a very shiny surface, or lustrous finish, resembling that of jet. It was originated in 1903 by a French chemist at Taonles-Vosges. Later, Bezons, eight miles northwest of Paris, along the river Seine, became the home of the industry and the supply for nearly all used. Recently American-made cellophane has been made available by the DuPont Cellophane Company.

79. This composition material, which is gelatinous in make-up, may be dyed any color and embossed to give many effects, for example, that of jade or silver, the form and color of metal scales, copper or steel, or iridescent and opalescent effects, such as mother-of-pearl or glistening enamel.

The manufacturing of this material has been brought to a point of perfection not attained when it was first introduced. The tendency to break and to be affected by weather conditions has been overcome to such an extent that cellophane is now supple, waterproof, and retains its attractiveness despite wear. Containing no animal matter, it does not decompose, and it can endure a

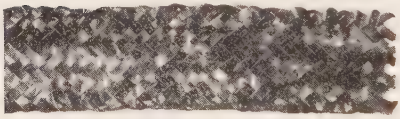
heat of one hundred degrees Centrigrade without distintegrating. Besides its high gloss, one of its outstanding characteristics is its transparency.

Under the name of cellophane, innumerable kinds of braid are introduced. In many instances, it is combined with visca and artificial silk into braids, allovers, and novelty ornaments, such as wings, quills, cabochons, and fancy pins. Often it is woven into beading, which resembles beaded materials.

80. *Cellophane beading*, made of $\frac{1}{8}$-inch twisted strands of cellophane, is shown in Fig. 49 (*a*). This beading is couched on various materials, in any desired pattern, the effect produced being like that of genuine bugle beads. Another beaded effect, wider, is illustrated by the *novelty beading braid* shown in Fig. 49 (*b*). This is made of $\frac{1}{8}$-inch strands of cellophane interwoven with a metallic thread.

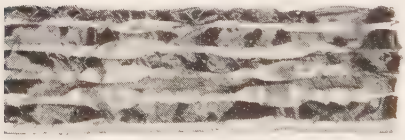
(*a*)
Cellophane Beading

(*b*)
Cellophane Novelty Beading
FIG. 49



Solid Cellophane Insertion Braid
FIG. 50

81. The *solid cellophane insertion braid* shown in Fig. 50 is woven of sixteen strands of cellophane so as to have a twisted or fancy edge on each side.



Cellophane Novelty Braid
FIG. 51

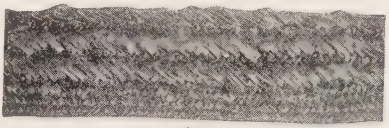
82. The *cellophane novelty braid* shown in Fig. 51 is made of two colors of cellophane, the strands slightly twisted, laid in parallel rows, and interwoven with a fine hemp thread.

83. Visca.—As in the case of cellophane, visca braid is a manufactured or loom-woven braid of French origin. The secret process for making visca is controlled by European firms, but domestic manufacturers buy the visca yarn and make it up into braid and allovers. Suffice it to know that visca is made of a composition of vegetable fiber and other materials that produce a silky, lustrous finish, not transparent, however, as is cellophane.

As in the case of cellophane, the invention and perfection of various compositions of wood fiber, artificial silk, and vegetable

fiber, together with the advent of specially constructed looms for weaving these various braids and the rapidity with which this work can be done, are all accountable for the general use accorded visca.

(*a*)
Novelty Visca Braid



(*b*)
Novelty Visca Braid
FIG. 52

84. Two types of *novelty visca braid*, each 1 inch wide, are shown in Fig. 52. The braid in (*a*) has a rather indistinct design, while the one in (*b*) shows that padding has been used to make an outstanding three-cord design. Fig. 53 shows a closely woven *visca insertion braid*.

Visca Insertion Braid
FIG. 53

85. *Tubular visca*, a narrow finishing braid shown in Fig. 54, is made of visca woven in tubular form. It can be used for finishing and for trimming purposes.

Tubular Visca Braid
FIG. 54

86. *Visca laize*, shown in Fig. 55, is like a fringe of visca threads caught in by weaving on both edges to make it resemble an insertion. The braid, when in vogue, is obtainable in widths from 1 to 18 inches; in the extra widths, several rows of supporting threads are run.

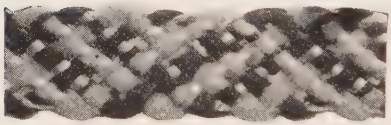
Visca-Laize Braid
FIG. 55

87. *Crocheted visca*, or *perlé visca*, is illustrated by the hat in Fig. 56, a soft body hat, hand-crocheted of visca yarn. It comes in hood and tam effect and makes attractive flexible pull-ons and crushed, draped turbans. Also, it can be blocked into stiff body hats, which are trimmed and made wearable with dainty summer frocks. The many novel designs produced are trade-named by their manufacturers.

88. Visca is made up also in combination with other materials, such as $\frac{1}{8}$-inch-wide strips of felt and the soft, satin-like, China, split-straw braids. Fig. 57 shows a *combination visca-and-angora braid,* the soft wool and the fine strands of visca forming a 1-inch-wide braid of two colors.

This type of braid is exceedingly lovely for soft, frameless hats, often sports hats; and when used in making such hats, makes them wearable at any season of the year.

Hand-Crocheted Hat of Visca Yarn
FIG. 56



Visca-and-Angora Braid
FIG. 57

HAIR BRAIDS, REAL AND ARTIFICIAL

HAIR-BRAID INDUSTRY

89. The majority of hair braids come from Switzerland and Italy. They are very similar in appearance except that, in Italy, tuscan is sometimes used in combination with the hair. For the manufacture of hair braids, hair is taken from horses' manes and tails, the hair from the mane being soft and that from the tail, harsh and inferior. Of course, hair from live horses makes the best product.

The first process in the hair industry is that of cleansing. Then the hair is combed and arranged into different lengths and sizes, after which it is generally dyed before it goes to the loom. The looms are of a special kind according to the type and width of product to be produced, but always the same process of arranging the hairs must be followed, the roots all being laid in the same direction.

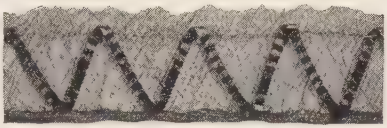
90. To test for real hair, burn a few strands at the end of the braid. If it gives forth an odor, you may know that it is real hair, as pyroxylin, or imitation hair, is made of vegetable fiber and is odorless.

VARIETIES

91. Artificial Hair Braid.—Illustrated in Fig. 58 is artificial hair braid, a French and Swiss product made of certain grasses that are treated for a brief period with concentrated sulphuric acid or chloride of zinc, this treatment rendering the fiber very strong and similar in appearance to real hair. In the braid illustrated, a strand of raffia is interwoven with the hair.

Artificial Hair Braid
FIG. 58

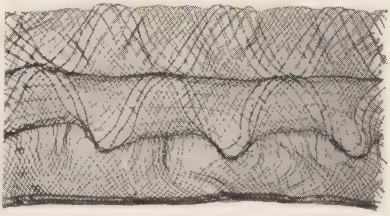
92. Combination Braid. The braid shown in Fig. 59 is a combination of artificial hair and visca, the hair being woven as the foundation and the fancy design of visca scrolled through it. This braid is a Swiss product of practical value.



Hair-and-Visca Braid
FIG. 59

93. Crinol Braid.—One of the imitation hair braids is known by the name of crinol. It is woven in various fancy designs and is machine-sewed spirally into body hats of a popular type and price. These bodies take shaping well, but are not of the very soft, fine quality of a real hair body. One of the best makes of hand-woven crinol bodies is called a *bouclette*. This particular body takes an Italian six days to make.

Plain Maline-Hair Braid
FIG. 60

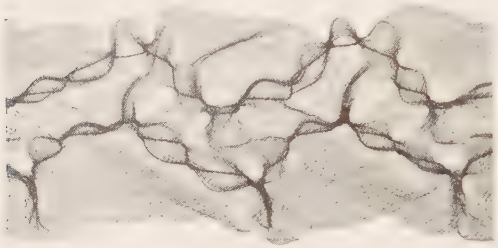


Maline Fancy Braid
FIG. 61

Maline Novelty Braid
FIG. 62

94. Maline-Hair Braids. In Fig. 60 is given an illustration of *plain maline-hair braid*, a Swiss product. It is a sheer, transparent braid made of horsehair woven to resemble maline. There are also cheaper grades of this braid made of fiber compositions or artificial hair. Along one edge, a

thread is run, which may be drawn up to shape the braid to conform to the desired shape of the hat in construction.



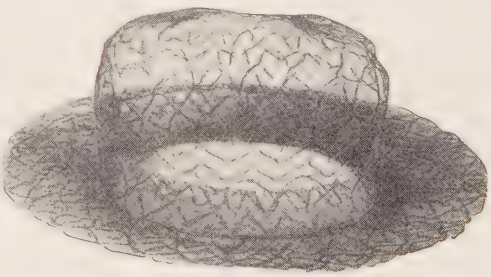
Maline-and-Tuscan Braid
FIG. 63

95. The real hair braid shown in Fig. 61, is another Swiss product. It is called a *maline fancy braid* because of its design or weave. This braid is woven as both edge and insertion braid in widths from 1 inch to 5 inches as well as in numerous other fancy patterns.

Another *maline novelty braid* is illustrated in Fig. 62, but this is a very closely woven braid. Along one edge, several silk cords are interwoven in the hair, producing a firm, unusual edge.

Still another fancy maline-hair braid is the *maline-and-tuscan combination* shown in Fig. 63. The sheer maline effect is broken by a tuscan cord woven through it, drawing the hairs in an unusual drop-stitch effect. This hair comes from Italy, woven in braids from 3 to 5 inches wide, and is used for hand-sewed hats and pressed body hats, one type of which is illustrated in Fig. 64. In the construction of this hat, the edges of the braid are interwoven with a strand of the hair. Two widths of the braid are used for the brim, which is woven in cushion effect.

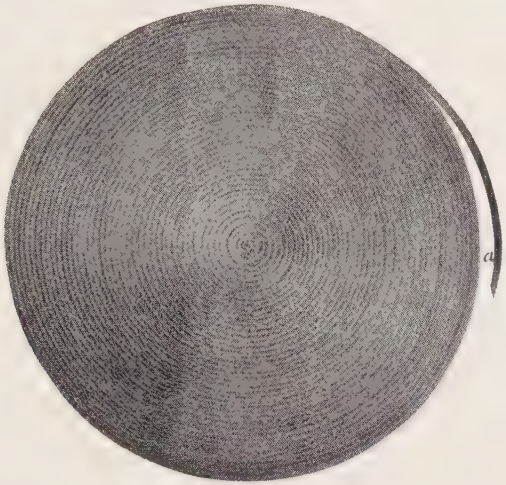
96. Neapolitan Tape Braid.—An imitation hair braid known as Neapolitan is so called because it originated in Naples, Italy. It is a braid of fiber in imitation of horsehair, and is always a tape braid, as illustrated at *a*, Fig. 65, which shows it in $\frac{1}{2}$-inch width. This braid is used in the manufacturing of machine-sewed body hats, plateaux, hoods, and draping bands.



Maline-and-Tuscan Hat
FIG. 64

The plateau, which is shown in this illustration, is machine-sewed of Neapolitan tape braid. This type of plateau is used in the construction of hand-made

hats and facings and for draping purposes. Also, it is pressed into body hats of one and two pieces, when Fashion so decrees.



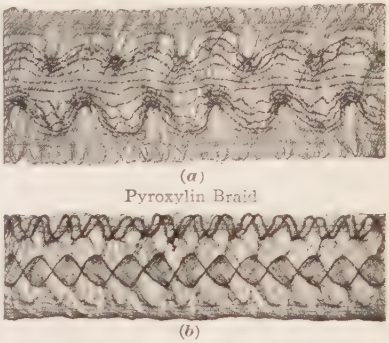
lateau of Neapolitan Tape Braid
FIG. 65

One type of two-piece pressed shape of Neapolitan tape braid is shown in Fig. 66. The unusual feature in this hat is the method used in sewing. It has the appearance of being hand-sewed and

Two-Piece Neapolitan Hat
FIG. 66

the braid has a crinkled effect, due to its being sewed by the "machine a repousser" perfected by Rombeau. Any braid sewed by this method is known as *Rombeau braid.*

97. Pyroxylin Braid.—In Fig. 67 are examples of two designs of pyroxylin braid. Such braids are in imitation of horsehair and are made of a vegetable fiber and artificial silk, sometimes combined with strands of visca, making an excellent combination. There is also a ½-inch *pyroxylin tape braid*, similar to Neapolitan, which is machine-sewed into plateaux and is used for pressed body hats.

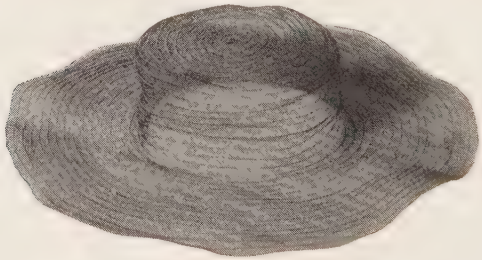


(*a*) Pyroxylin Braid

(*b*) Pyroxylin Braid

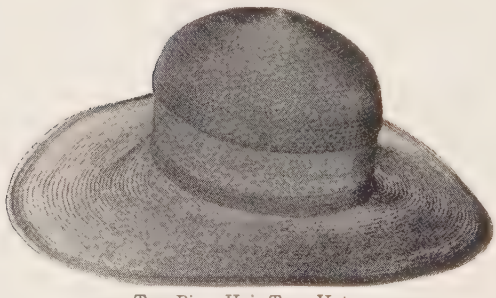
FIG. 67

98. Real Hair-Tape Hats. Illustrated in Fig. 68 is a transparent, *real-hair-tape flat*, machine-sewed in one piece, the brim being the same width all around and continuing up on the crown, finishing at the center top. Formerly, this type of hat was used chiefly for misses and children, but in recent years it is used frequently for adults.



Real-Hair-Tape Flat

FIG. 68



Two-Piece Hair-Tape Hat

FIG. 69

99. The *two-piece, pressed, real-hair-tape hat* shown in Fig. 69 shows how a hair hood and plateau appear when pressed into a completed shape. The plateau is pressed for the broad-of-sides and short-front-and-back brim and the hood is used for the crown. The crown is rather unusual because, at the top of the side-crown portion, there is an inverted plait about 2 inches deep. This type of hat is used extensively for large picture models or with a band and a bow for street wear.

100. Another unusual method for using hair-tape braid is shown in Fig. 70. This *two-piece, basket-woven, pressed shape* is made from a hand-woven, cone-shaped hair hood. These hoods are imported and then pressed into the desired shapes. The top portion of the hood is used for the oval crown and the lower portion for the brim.

101. Tubular Hair Braid.—The tubular hair braid shown in Fig. 71 is made of real or artificial hair woven in tubular form. This braid is used as a finishing braid and also for trimming purposes, being sewed in rows or in scroll design on different fabrics.

Two-Piece Basket-Woven Hair Hat
FIG. 70

Tubular Hair Braid
FIG. 71

ALLOVER FABRICS

NATURE

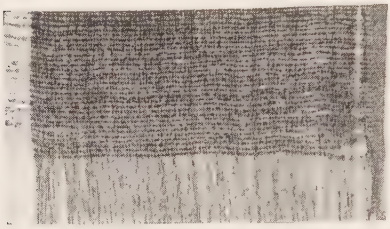
102. Along with the narrow braid effects in straw, fiber, and hair, there are numerous kinds of allover webbing or yardage of the same or similar materials. These different fabrics vary in width from 16 to 40 inches, and are used in the construction of entire hand- and machine-made hats, as well as for drapes, facings, and various novel effects.

Many of the allover fabrics used are domestic products woven from the imported cellophane, visca, and other fiber yarns. The domestic drapes are somewhat thinner and have to be "backed up" with another material or the frame will show through; but the imported drapes are superior in this respect and do not require the inner lining.

103. Although there are many other spring and summer allover materials besides those mentioned in this chapter, they are not limited to wear during the warm seasons. Consequently, other feasible and popular materials are to be found in Chapter III, *All-Year Fabrics.*

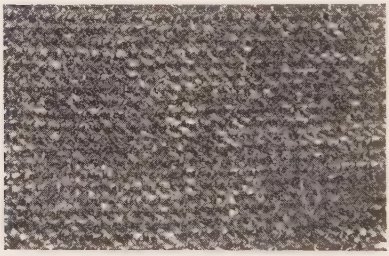
VARIETIES

104. Batavia Cloth.—Illustrated in Fig. 72 is a semitransparent fabric woven of wood fiber. Although it was named originally for Batavia, the capital of Java in the Dutch East Indies, it is now manufactured chiefly in the Philippines. It comes in plain weave only, but in all colors.



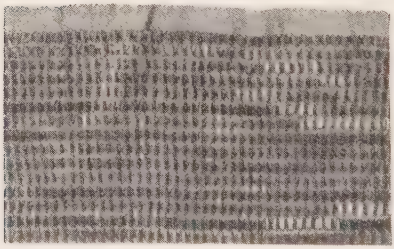
Batavia Cloth
FIG. 72

105. Cellophane.—Besides coming in numerous braid forms, cellophane comes in yardage in both plain and fancy weaves of great variety, each season producing new weaves and designs. Cellophane allover, shown in Fig. 73, is made of a strand of cellophane interwoven with a chain-stitch of mercerized cotton thread. It is the twisting of the cellophane strands that produces the pebbly effect on the right side of the fabric. This fabric is used successfully both for fitting and for draping purposes.



Cellophane Allover
FIG. 73

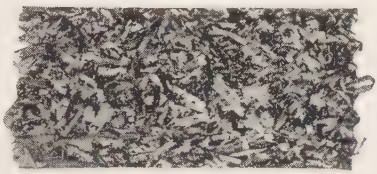
106. Another kind of cellophane allover is shown in Fig. 74. This fabric also is made of the narrow strands of cellophane woven in tiny loops, or in beaded effect, with a fiber and cotton thread forming the back.



Cellophane Allover
FIG. 74

A cellophane allover that is used extensively for trimming purposes is made to resemble jet banding, the cellophane being cut in discs and applied to net-like sequins. Another type is called *cellophane brocade*, the floral patterns of which are in a raised formation of cellophane bugle beads on a foundation of woven silken-fiber haircloth.

107. Chrysanthemum Allover.—The term chrysanthemum allover is applied to the material illustrated in Fig. 75, which has the nature of the braid of the same name but is of yardage width. This fabric is made of visca strands, woven in rows of loops with a chain-stitch of cotton thread. The loops are then clipped, forming a fuzzy effect.

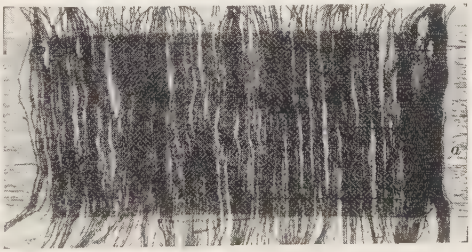


Chrysanthemum Allover
FIG. 75

108. Hair Crin.—Hair crin, a transparent haircloth, shown in Fig. 76, is woven of fiber or imitation hair to resemble a sheer net. When made into hats, this haircloth can hardly be detected from real hair.

Hair Crin
FIG. 76

109. Haircloth.—Illustrated in Fig. 77 is an example of an all-over haircloth fabric woven of the real hair of the horse's mane and tail. Single strands of hair which do not form a continuous yarn are used for the weft. A loom attachment, called nippers, picks up each of these hairs separately and lays it between warp threads.



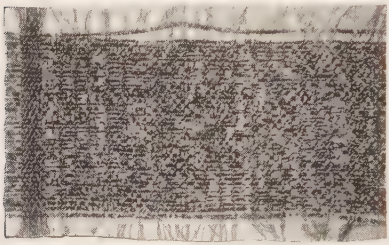
Haircloth
FIG. 77

When haircloth is woven with a silk thread, it is called *silk haircloth*, and when woven with a cotton or linen thread, it is known as *mohair cloth*. Its width is governed by the length of the strands of hair. Generally, ends of hair extend beyond the selvage, as shown at *a*, in the illustration.

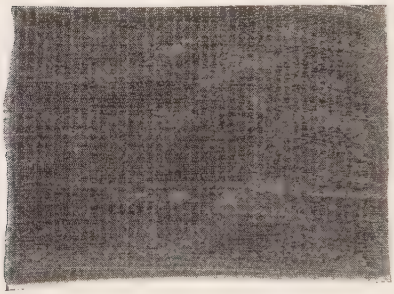
Haircloth is used for making fitted hats and cannot be excelled for draping purposes when Fashion favors the swirl.

110. Hindustan Cloth.—In Fig. 78 is given an example of Hindustan cloth, sometimes called *satin Kandy*. It is woven of a

fiber or artificial silk, so treated as to have a high gloss and resembling silk matting. There are several grades of this fabric, the first being very satiny in appearance and exceptionally good for draping purposes, as well as for fitting over a frame.



Hindustan Cloth
FIG. 78



Kandy Cloth
FIG. 79

Satin Crin
FIG. 80

111. Kandy Cloth.—The fabric shown in Fig. 79 derives its name from the city of Kandy on the Island of Ceylon. It is so soft and pliable that it is excellent for draping and for producing "wrappy" effects in turbans. It also has such a high gloss that it is an extremely shiny material. This fabric is similar to that used in the turbans worn by the Hindoos, the natives of Ceylon in particular. Its name is occasionally written *Kandee*, or *Kamdy*.

112. Madagascar Cloth.—A rough straw cloth that resembles cocoanut bears the name of Madagascar cloth. It is a fiber fabric, used chiefly in the natural color and recurring in popularity from time to time.

113. Milan Timbo.—The term milan timbo is the trade name for an allover timbo fiber woven over tiny ribs of cotton thread to resemble milan. It is used for entire hats or in combination with silk, and can be draped very successfully. When this type of fabric is popular, it is sometimes called *straw grosgrain*, because it looks somewhat like grosgrain.

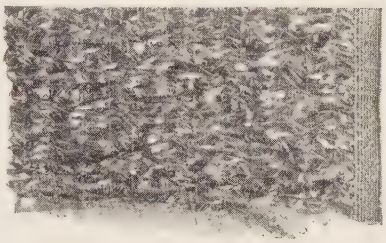
114. Mindora Cloth.—A transparent fabric quite similar in appearance to batavia cloth, but a domestic fabric woven of fine

hemp thread, has the trade name of Mindora cloth. This fabric is used as a substitute for batavia by American manufacturers.

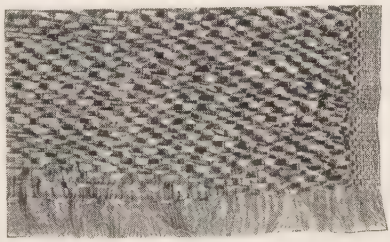
115. Satin Crin.—An allover fabric which is made of the same hair fiber as hair crin, but which is interwoven with pyroxylin or vegetable fiber as a backing, is shown in Fig. 80. This material is called *satin crin*, or *crinol*, also *baronette haircloth*. It has a very high sheen, and is especially good for fitting hats, also for draping purposes.

Visca Allover
FIG. 81

116. Visca.—As in the case of visca braids, visca allovers, which are developed from the same fibrous substances and are of the same texture as the braids, are of countless designs. Some seasons show a fabric in which strands of visca laid parallel make the weft, and strands of cotton, the warp thread, while other times the visca yarn is woven into many novel designs. Sometimes it is combined with other straw fabrics. Fig. 81 shows a *novelty visca allover*, in which the strands of visca are woven on a cotton fabric as a foundation and are twisted to form the design.



Shredded Visca
FIG. 82



Yacca Cloth
FIG. 83

Shredded visca, shown in Fig. 82, is made of narrow strands of visca woven in loops on jersey cloth as a foundation. The right side resembles shredded wheat.

Still another weave of visca is *brocaded visca*, the effect of the brocade being obtained by dull and shiny strands woven according to a pattern. In addition, many novelty effects in *crocheted visca* are created for draping and fitting purposes in millinery.

117. Yacca Cloth.—The allover fabric shown in Fig. 83 is called yacca cloth, because it is made from the wood of the yacca tree that grows in Jamaica. It comes in several grades, the cheaper ones being woven with a cotton thread and the best ones, with silk thread. The braid is woven in mat form and pressed by machinery into blocked shapes of popular price.

CHAPTER II

MATERIALS FOR FALL AND WINTER

RANGE AND UTILITY

1. Seasonal Characteristics.—Climatic conditions have a very definite influence upon the nature of the materials appropriate for seasonal wear. The weight, the texture, and the appearance of millinery fabrics must change in accordance with the seasons in order to meet human needs. Before a winter hat, for instance, can serve its main purpose, it must, besides being well-made, stylish, and becoming, be substantial enough to afford protection from cold and storm.

2. Classification.—There are always certain staples that form the basis of each season's supply of fabrics. For fall and winter, velvet is the material that has proved to be most popular. Felt and plush, also, give good service and may be developed into attractive hats. Then, too, there are many novelties as to weave and texture, which find favor from time to time and which can be employed with numberless attractive results. Fur, both a staple and a novelty material, of course, is always effective against the cold and is very suitable for use on winter hats.

3. Utility of Staple Goods.—The materials included under staple cloth fabrics are, for the most part, those which have stood the test of time. Some are to be found in abundance each fall and winter, no hat display being complete without them; others, although not used in such quantity, are sure to appear in some form or other.

Although staple fabrics do not possess the striking and unusual features that characterize novelty fabrics, there is, as well as a practical quality, a charm about them that insures their continued popularity. What they may lack in novelty, they usually more than make up for in general utility, for their style is never extreme nor quickly thrown aside. Their qualities of practicability and beauty are guarantees of their continued service.

4. Utility of Novelty Goods.—Each season, a few fabrics of novel weave or texture give variety to the season's materials. Some of these fabrics are entirely new creations of manufacturers, while others are old materials that the cycle of fashion reinstates. But whether of new or of older origin, novelty cloths are not of the lasting order. Those very outstanding features that distinguish them and make their popularity so marked for a time, necessitate a change to fabrics of less unusual design or at least of different character.

5. There are, however, a few novelty fabrics which have been able to live through longer periods of popularity and so have come to be considered almost on an equality with the staples. Consequently, as there is bound to be change or overlapping of classification, it is impossible to draw firm and fast lines between staples and novelties, and the division in this chapter is, therefore, made between allovers and braids.

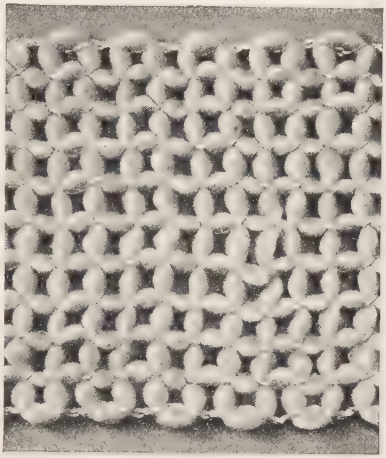
The range of materials described is not exhaustive, but it contains the majority of fabrics that milliners use for fall and winter millinery. These materials are listed in alphabetical order so as to make reference to them an easy matter.

VARIETIES OF ALLOVER MATERIALS

6. Allover Embroidery.—Of varying foundation is allover embroidery, which is a novelty that reappears at different intervals. It consists of an allover design of embroidery done, either by hand or by machine, on a variety of foundation materials, such as duvetyn, silk, satin, velvet, and sometimes leather. There is equal variety in the embroidery, which may be done with floss, narrow, plain and fancy ribbons, chenille, metallic thread and braid, silk cords, soutache braid, and combinations of two or more of these

materials. The type of material and design is governed by the inspiration and fashion period portrayed.

7. Angora Allover.—From a certain kind of goat, raised in and around Angora, Asia Minor, an especially soft kind of wool called Angora is obtained. Since the Turkish government prohibits the exportation of these goats, pure Angora comes from Asia Minor only. The wool of the goat is made into yarn which, in turn, is woven into soft, fuzzy cloth and braid suitable for making hats and novel sports sets. In Fig. 1 is shown an illustration of allover webbing made from Angora wool.

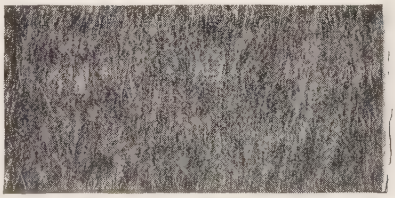


Angora Allover Webbing
FIG. 1

Very little of the real Angora is used in this country, most of the so-called Angora being *brushed wool*, which is a domestic wool woven so loosely that its hairs can be brushed to resemble Angora.

Because of the warmth of Angora or brushed wool and its use for sweaters and scarfs, it has come into popularity for matching hats of the crushable, or flexible, type.

In some cases, Angora yarn is used in combination with visca, cellophane, or other composition straws, for between-seasons' wear.

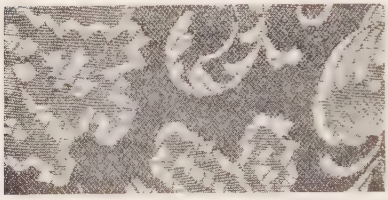


Beaver Cloth
FIG. 2

8. Beaver Cloth.—An all-over fabric that is made, or processed, in the same way as felt and known as beaver cloth, is shown in Fig. 2. For the first grade, a fur-and-wool combination is used, the fur being so applied that it is easily brushed up in a long, fine, fur nap.

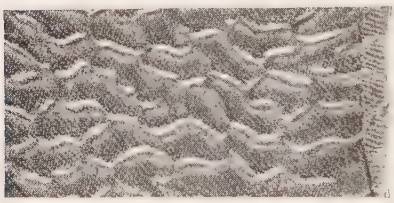
In some of the forms into which the raw material is made, beaver cloth can be used in the construction of plain-fitted or draped hats, also pressed into one- and two-piece blocked shapes.

9. Brocades.—The term brocade is a collective name for a large variety of velvet, silk, satin, allover straw, and other fabrics having patterns or figures in the same or in different colors, often of an embossed character. Originally, brocade was a costly fabric of Chinese origin, woven on a satin foundation with gold- or silver-cord yarn, but in recent years it has been produced in all grades and kinds of material, and large quantities of it are used for millinery purposes.



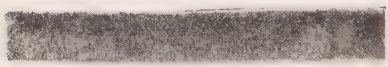
Brocade
FIG. 3

Gold, silver, and other metal brocades, one example of which is shown in Fig. 3, are classed as staple fabrics for winter wear, being used very often in combination with fur.

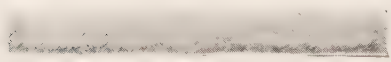


Caiman Cloth
FIG. 4

10. Caiman Cloth.—A ciré satin that is treated so as to resemble alligator skin in its rigid printing, is shown in Fig. 4. It is sold under the trade name of caiman cloth, *caiman* being another name for alligator.



(*a*)
Silk Chenille Cord



(*b*)
Wool Chenille Cord
FIG. 5

11. Chamois Skin.—From the hide of a species of antelope, chamois skin is obtained. In the natural and in dyed colors, it is used for making entire hats in combination with other fabrics and furs. Also, it is employed for making flowers.

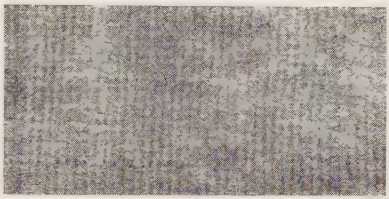
12. Chenille.—The French term for caterpillar, *chenille*, is the name applied to a cord having a pile that protrudes all around and makes the cord closely resemble a caterpillar. Chenille cord, an example of which is shown in Fig. 5 (*a*), comes in several different sizes and grades. For millinery purposes, it is usually made of silk, although sometimes silk and wood are used, or, for cheap products, all wool, as illustrated at (*b*), is substituted for the silk.

The cords shown here are used principally for embroidery and decorative stitches, but chenille cord is woven also into braids of all widths, allover fabrics, and novelty bands.

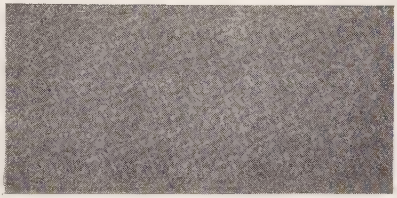
13. *Chenille cloth*, shown in Fig. 6, is an allover fabric with chenille cords used as the weft in combination with wool or cotton for the warp. This produces a fur-like surface, which resembles a soft, fuzzy corduroy.

Another style of *allover chenille* is made of chenille fringe or cords, and is so woven as to have the appearance of being crocheted.

14. Duvetyn.—In Fig. 7 is an illustration of duvetyn, a fabric that closely resembles velvet and yet differs from it in that velvet is a pile fabric and duvetyn, a nap fabric. This means that the face of the cloth is woven into velvet, whereas it is put on duvetyn by machine after the weaving is completed. Like velvet, duvetyn is much used in the development of entire hats.



Chenille Cloth
FIG. 6



Duvetyn
FIG. 7

Duvetyn was originally a French product. However, the French no longer have a monopoly on it, American manufacturers producing it with a fine, lustrous nap. American manufacture, however, requires some twelve operations, and, while resulting in a well-finished product, is expensive.

Nine-tenths of the duvetyn used for millinery work has a cotton back; that is, the cloth has a cotton warp and a silk weft. This necessitates double dyeing, because the silk will not take the cotton dye, and vice versa. In addition, the dye must be evenly applied and closely matched in color. This requires skilful labor and several operations in order to eliminate any imperfection, so, naturally, increases the cost of production.

15. Duvenor.—The term duvenor is the trade name for a domestic fabric that is similar to duvetyn, but that has a longer and thicker nap and an all-cotton back.

16. Eiderdown Cloth.—The material known as eiderdown cloth has a soft, nappy texture, apparently a combination of angora, scratch felt, and blanket cloth. Because it is a knitted, instead of a woven, cloth, it is usually warm for its weight. It comes in a variety of designs and colors and in widths from 27 to 44 inches. All plain colors are simply dyed, but stripes, squares, or other fancy effects are knitted or embroidered into the fabric by machinery previous to the napping.

Eiderdown cloth may be draped and is especially good for sports apparel.

Felt Skirt
FIG. 8

17. Felt.—The term felt is applied to an unwoven fabric of wool, fur, or hair. The process of felting is very interesting, the fibers being interlocked by a process of rolling between rollers, partly heated and submerged in water, or being sucked into cones by suction fans. In either case, heat and pressure are necessary Each hair travels in its own direction, root foremost, boring among the other hairs, grasping by means of its pointed scales, and twisting until altogether the hairs form a compact, dense mass that cannot be torn.

Felt Hood
FIG. 9

18. There are several grades of felt, the fur, or soft, *French felt* being the finest. Camel's hair, *scratch felt*, is made of a combination of entangled and matted wool, fur, and mohair, according to the method already described.

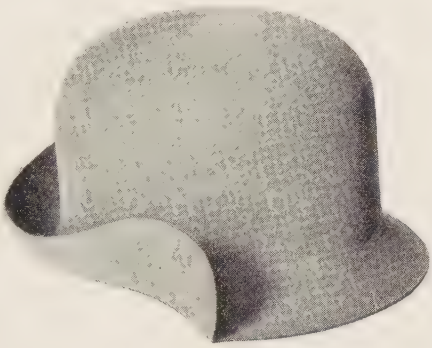
An inferior grade of felt, *flannel felt*, which is used in the manufacturing of cheap hats, is made of a mixture of cotton and wool with sometimes a little glue, or sizing, to mat it. Another grade of felt, partly rayon in composition, is known as *rayon soleil felt*. This has a longer nap than any other felt, and when ironed down looks like hatter's plush.

19. Felt is made into plateaux, skirts, and hoods, and then dyed any desired color.

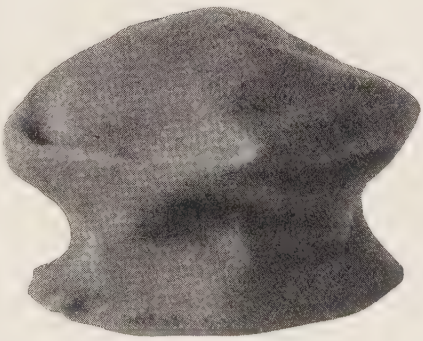
Felt plateaux are round, flat surfaces like tagal plateaux, Fig. 41, Chapter I, which are made to a certain thickness and then split horizontally to get the required quality or weight.

Felt skirts are cylindrical in shape, as in Fig. 8, which shows a felt skirt just as it comes from the machine. Such a skirt is used for draping turbans, for covering foundation frames, and for numerous other purposes.

Felt hoods are cone-shaped, as illustrated by Fig. 9, which shows a first-grade felt hood before it has been blocked or pressed into shape. These hoods are used also for draping purposes, either over a solid foundation frame or just softly to fit the head.



Felt Shape
FIG. 10

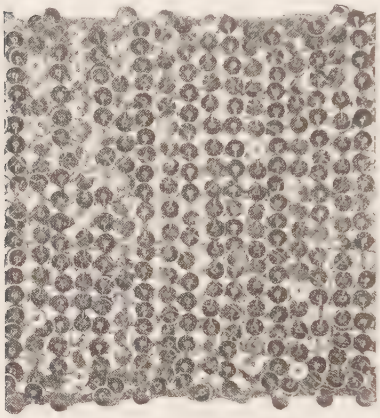


Felt Beret
FIG. 11

20. In Fig. 10 is illustrated a one-piece pressed felt shape. This shape was pressed from the hood shown in Fig. 9 and is only one of many different styles that may be obtained from hoods. Another pressed shape is the *felt beret*, or tam effect, shown in Fig. 11.

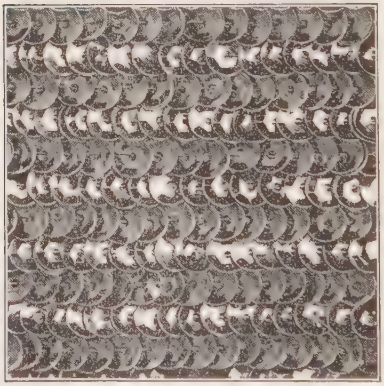
21. Flitter Cloth.—The name flitter cloth is the special name given to a sequin-covered net or gauze commonly called *allover jet*

or *jet banding*. The sequins, which are galilith, a French composition in imitation of jet, are very tiny disks, or spangles, each with a hole in the center and applied to the foundation net by machine with chain-stitching. This allover flitter cloth comes in widths from 9 to 12 inches, also in circular patterns for hats.



Transparent Flitter Cloth
FIG. 12

Fig. 12 shows a *transparent flitter cloth*, the sequins being applied separately or to show the net between. Fig. 13 shows a *solid flitter cloth*, the sequins being applied to the same foundation net, but each sequin lapping the preceding one and in this manner forming a solid effect. In this instance, there are two colors used and the rows are applied in opposite directions, making the cloth unusual. Also, it may be woven in floral or conventional designs for brims or crowns of hats or for bands to be used on turbans.



Solid Flitter Cloth
FIG. 13

22. Iris Satin.—An embossed satin somewhat on the order of caimen cloth, and used for the same purposes, has the trade name of Iris satin.

23. Karakul.—The fabric, karakul, a type of fur cloth, is a very high-grade, silk-pile fabric with a high lustre. It has taken years to perfect this fabric so as to make it a close imitation of caracal fur.

24. Kid Skin.—The soft, flexible skin of young goats, tanned by the kid-leather process, is very often used in the construction of close-fitting, pull-on, travel and sports hats and for floral and geometrical cut-out bands and sprays for trimming purposes.

25. Kiki Cloth.—The term kiki cloth is the trade name for a fabric which is primarily of a silken weave and which, because of its corrugated surface, is best described as a cross between uncut velvet and a heavy poplin silk.

26. Metal Cloth.—Under the general term of metal cloth, there are several types that are woven of silk or cotton combined with gold, silver, or copper threads. These come in both the narrow and the wide widths and work up equally well for draping and plain-fitting purposes. Also, they combine well with fur and other materials.

As in the case of other millinery fabrics, each year produces a new design in the weaving. Sometimes a *gauffré effect* is obtained by pressing metal cloths between hot cylinders so as to produce embossed patterns, wrinkles, or puffy designs. At other times, fancy effects are obtained during the weaving, as in the case of the *brocaded metal cloth* shown in Fig. 3.

27. Patent Leather.—The term patent leather is applied to a very light-weight, pliable skin that is covered with a glossy, varnish-like coat. Thinly scraped calf skin, or kid, is treated with several coats of liquid preparations, and scraped and pumiced until the leather is filled and perfectly smooth. The finishing coat is applied in a room with the door closed and the floor wet in order to prevent dust from settling on the leather before it dries.

A good grade of *oilcloth* makes an excellent substitute for patent leather in millinery work.

28. Peau Duvetine.—The liberal meaning of the name peau duvetine is "downy skin." It is the trade name for a typical Parisian novelty resembling satin crêpe, slightly wrinkled and having, also, somewhat the appearance of chamois.

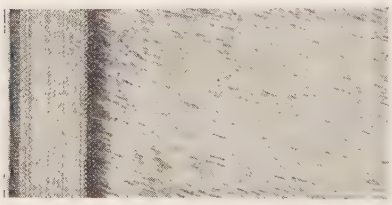
29. Plush.—The material known as plush, which is manufactured in Lyons, France, and in Genoa, Italy, is a pile fabric, the name originating from the French word *peluche*, which means "shaggy." Like velvet, it is woven in two pieces, one over the other, with the pile thread woven back and forth between them. A knife then travels between the two pieces, cutting the pile thread. Plush is sometimes called *long-napped velvet*, the distinction between it and velvet being in the longer and less dense pile upon its surface.

Plush may be all silk, or various kinds of fiber may be used in its manufacture. The width of plush varies from 18 to 50 inches.

30. *Hatter's plush*, shown in Fig. 14, another product of Lyons, France, and Genoa, Italy, takes the place of the napped beaver-felt or short-clipped rabbit hair that was formerly used in making gentlemen's dress hats. This is an all-silk fabric with a very long pile that is processed and then pressed between heavy steam rollers, producing a very slick surface with a high luster.

31. *Zibeline plush* is thickly woven and has a long, straight, and glossy pile, which is raised after weaving and then pressed down to give it a flat appearance. It is used chiefly in the manufacturing of sailors and other popular-priced, ready-made hats.

32. Suède.—The term suède is applied to a lamb skin that has been tanned on the wrong, or flesh, side; or, if finished on the right side, has had the thin, glossy outer grain shaved off, leaving an undressed surface. It is made into hat bands, flat flowers, and various other trimming novelties, besides being blocked into entire hats.



Hatter's Plush
FIG. 14

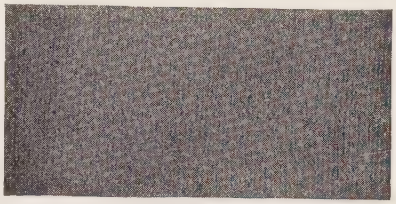
33. Velvet.—One of the most popular millinery fabrics, velvet, originally came from the Far East. Later, Persia supplied the European demand for plain and brocaded velvets until the Moors established factories in the conquered parts of Spain. Still later, in the 12th century, King Roger of Sicily started the industry by kidnapping expert weavers from Greece, which also had taken up the manufacture.

Although the present name comes from the Italian *velluto*, which means "feeling woolly to the touch," velvet was not introduced in Italy until the 14th century, when the industry sprang up in Florence, Venice, Genoa, and Lucca. In the past century, the chief seat of manufacture has been at Lyons, France, where a loom was invented to meet the increasing demand for velvet by turning out two pieces at once, woven face to face, with a knife to cut the pile between the facings.

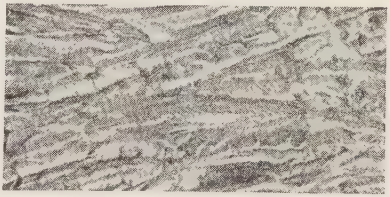
Inferior grades of velvet and imitation velvet are produced in the United States, England, and Germany.

34. The distinguishing characteristic of velvet is its pile, a raised surface which is produced in the loom by using a second set of warp threads, known as pile warp, in addition to the ordinary warp thread used in weaving and known as the beam warp. The pile is woven in loops over wires, the finest velvet containing from 40 to 50 loops in a 1-inch square. Such fine work necessitates a slow, tedious process.

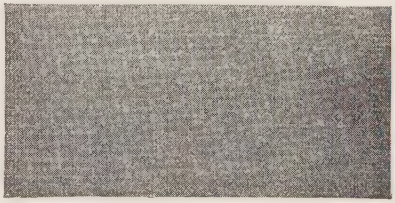
In velvet, the pile, or upstanding surface, though very short, is not absolutely perpendicular, but inclines a little to one side and, therefore, casts a shade, thus giving a darker tone of color against the pile than with it. In the best grade of velvet, this shade is very distinct; and in manipulating it, care must be exercised that it is matched so that the shade will be cast in one direction throughout.



Chiffon Velvet
FIG. 15



Gauffré Velvet
FIG. 16



Lyons Velvet
FIG. 17

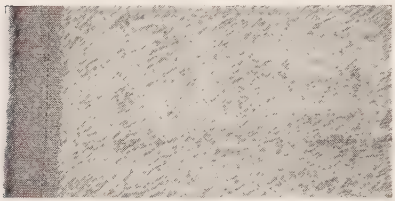
As for ornamentation, there are, in the weaving of velvet, many ways of treating it, such as varying the color of the pile, producing pile of different lengths,—pile upon pile, or double pile,—and brocading with plain silk or with uncut pile.

35. *Chiffon velvet*, shown in Fig. 15, is the lightest and softest velvet made. Its pile has the appearance of tiny ridges from side to side. The best grade is an all-silk fabric and, as the name implies, has excellent draping qualities. It is woven in narrow and wide widths and is best adapted for making suits, gowns, and evening wraps, and in millinery for making hats to match these costumes.

36. Illustrated in Fig. 16 is *gauffré velvet*, which is ordinary velvet that has been processed with hot calenders, or rollers, so as

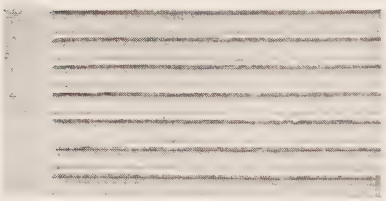
to produce different embossed patterns, wrinkles, or puffy designs. It takes its name from the French word *gauffré*, which means "goffered," "crimped," or "honey-combed."

37. *Lyons velvet*, shown in Fig. 17, is named after the city where it is manufactured. It has a short, dense-piled surface, and comes in three grades, known as silk-back, patent-back, and cotton-back. The silk-back grade is woven entirely of silk; the patent-back, which is the one used chiefly for millinery work, is woven on a foundation of linen and silk of fast colors; while the cotton-back, the inferior grade, is used in the manufacture of inexpensive ready-made hats. The width of this velvet is 18, 20, 24, and 36 inches, the 18-inch material being best adapted for millinery work.



Panne Velvet
FIG. 18

Paon velvet is a good grade of Lyons velvet. The pile is pressed in one direction but not flat, and this results in a very high gloss.



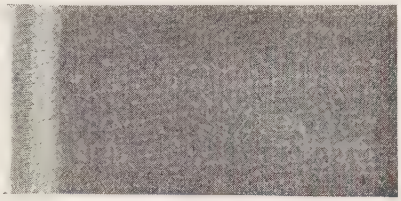
Uncut Velvet
FIG. 19

38. *Panne velvet*, shown in Fig. 18, is another imported fabric, and comes in several grades, the best grade being imported from Italy and France. Its pile, which is longer than that of ordinary velvet and shorter than that of plush, is pressed down flat with hot irons or steam rollers, producing a very slick, shiny surface. It is woven in 18-, 36-, and 40-inch widths. When one is working with it, care must be exercised to match it so that the pile runs in the same direction.

The domestic product of this type is known as *mirror velvet*. This method of pressing the nap flat on the right side is a means of renovating old velvet.

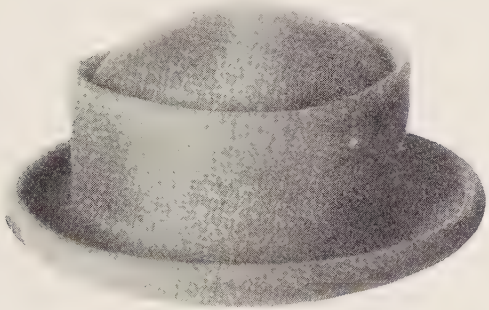
39. *Terry velvet* is an all-silk velvet manufactured in England. It is woven in close ridges of uncut-loop pile, not unlike terry cloth or Turkish toweling. This uncut-loop pile is formed by a separate set of warp.

40. *Uncut velvet*, shown in Fig. 19, is a French product woven in rows of uncut-loop pile, similar to terry velvet or the weave of Turkish toweling. On account of the dull, rich finish of this fabric when in black and in white, it is used chiefly in these colors for making mourning hats.



Velveteen
FIG. 20

41. Velveteen.—Illustrated in Fig. 20 is velveteen, an imitation velvet woven entirely of cotton with a very short pile. The better grade is made lustrous with a combination of linen in the weaving, and is used in the making of suits, gowns, wraps, and hats to match the costume. This material is manufactured in England, the United States, and Germany, as well as in France and Italy.

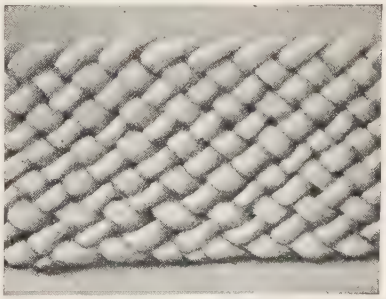


Blocked Velours Hats
FIG. 21

42. Velours.—In millinery, velours is an aristocratic material. It is a fabric imported from Austria and is made similar to felt, the very finest rabbit and coney fur being used in its construction. Velours comes in strips, hoods, and skirts just as felt. It is used for fitting and draping purposes or for blocked hats of any desired shape. Fig. 21 shows a blocked velours hat with a rolled-edge brim and telescope crown.

VARIETIES OF BRAIDS

43. Angora Braid.—Illustrated in Fig. 22 is a close braid about 1 inch wide, woven of Angora yarn. Very often Fashion suggests a straw piping braid

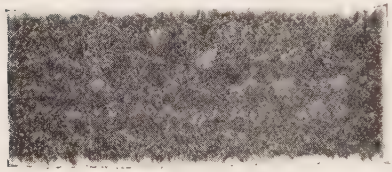


Angora Braid
FIG. 22

interwoven in combination with this wool braid, making it suitable for wear all year in sports hats.

44. Chenille Braids.—Chenille braids, like allovers, are woven from the cords shown in Fig. 5. Sometimes in the weaving of chenille cord, a very fine wire is used, the chenille being woven over it so as to conceal it. One example of *wired chenille-cord braid* is the 1-inch braid shown in Fig. 23. Note how each strand of chenille stands out definitely.

Chenille Cord Braid
FIG. 23

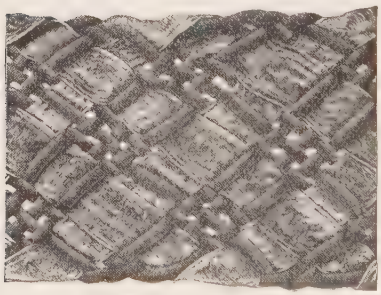


Chenille Fancy Braid
FIG. 24

45. The *chenille fancy braid* illustrated in Fig. 24, is woven of chenille cords similar to those in Fig. 5 (*b*). In the making of this braid, numerous strands are used, but they are so compact that the braid is only $1\frac{1}{4}$ inches wide.

Chenille Insertion
FIG. 25

46. The *chenille insertion* shown in Fig. 25, is woven of chenille cord or fringe by a method similar to that employed for weaving visca-laize braid, Fig. 36, Chapter I.

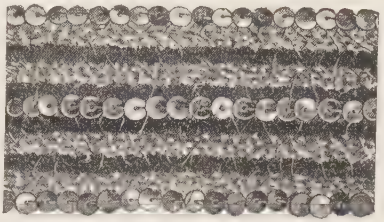


Chenille-and-Silk Braid
FIG 26

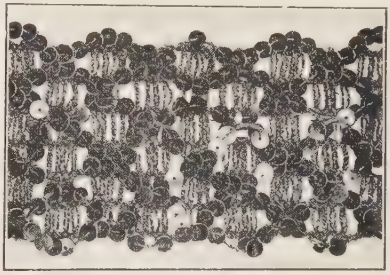
47. A novelty *chenille-and-silk braid*, woven of chenille cords and combined with a narrow silk tape, is shown in Fig. 26. This type of braid is sometimes woven in strips, 9 and 12 inches wide, and used for draping purposes.

48. Felt Stripping.—Felt is sometimes cut in narrow strips to be used in the form of braid. Sometimes these strips are woven into different widths of braid, also box-sewed into body hats. The strips, in some instances, are pinked along one edge and combined with straw piping.

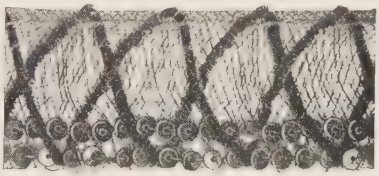
49. Flitter Combination Braids.—Very often sequins are combined with various other materials to form braids, the other material being of cord or thread nature so as to form the means of weaving the sequins into the braids. Fig. 27 shows such a braid, a combination of sequins and metallic threads. Fig. 28 shows a fine chenille cord used as a foundation for the jet sequins, and Fig. 29 illustrates how these sequins may be used on the edge of pyroxylin braid. Another combination of materials made for novel effect is that of chenille rope and raffia interwoven with sequins.



Braid of Sequins and Metallic Threads
FIG. 27



Braid of Chenille Cord and Sequins
FIG. 28



Sequin-and-Pyroxylin Braid
FIG. 29

50. Silk Braids.—A novelty silk braid is shown in Fig. 30. This braid is in a combination of colors in imitation of Scotch plaid and is quite effective as a binding on felt and other fabrics when a touch of color is desired.

Fig. 31 illustrates another type of pure silk braid. In this instance, a strand of metal thread is interwoven through the silk.

Silk Braid
FIG. 30

Silk Braid with Metal Thread
FIG. 31

FURS

CHARACTERISTICS

51. In the raw state, furs are the pelts that have been taken from different animals. Few animals, however, furnish a pelt of the correct weight and

pliability for millinery use, and all pelts differ widely in texture, shape, size, and fineness. Certain animals have one covering of fur underneath a longer covering called *overhair*. This overhair is straight and rigid, while the under hair is the soft, silky down that is rightly termed fur.

52. Good fur is akin to fine gems and will always command admiration and a proper price; yet the ingenuity of the manufacturers has evolved so many improved processes for treating the fur that skins which would not have been worn formerly are now transformed into very fair imitations of handsome fur.

53. There are many varieties of fur, but, as in the case of other wearing apparel, the style changes according to the dictates of Fashion and each midwinter season finds certain furs more popular than others. Only those furs that are best adapted to millinery purposes are described here. The short, silky fur is the kind most generally used. However, the long fur is very often cut into strips and used for trimming, and, in the colder countries, is made into close-fitting turbans or cap effects.

VARIETIES

54. Badger.—The fur known as badger, or *blaireau*, as it is called in French, is a long-haired, rather coarse, woolly fur in light beige tipped with black and white. When it is used in millinery, it comes for trimming purposes, as it can be cut in narrow strips to be used as edging or fringe, and can be shaped into pompons and other fancy ornaments.

55. Beaver.—The best beaver, which is the pelt of an aquatic animal of rat-like form, comes from Labrador, but much good beaver comes from the northern parts of our hemisphere. This fur, which is also called *castor*, is thick and fine and of a delicate light brown or castor color. It can be used in the making of entire hats or in combination with other fabrics, such as Fashion dictates.

56. Broadtail.—The broadtail in most common use, which is known as American broadtail, is the pelt of a South American lamb taken when it is about six or eight weeks old. Its long hair is closely sheared, and the result is a beautiful, wavy effect which we associate with the well-known and costly European broadtail that

is used for the most elegant outer garments. American broadtail comes in three colors, platinum, sand, and black; and when united with contrasting or harmonizing velvet or duvetyn, it makes the most chic of hats.

57. Caracal.—The reddish-brown, flat, wavy fur of the Persian lynx, an animal native to Asia and Africa, is termed caracal. This fur is imitated in a silk and wool fabric, karakul cloth, described in Art. **23.**

58. Ermine.—The term ermine is applied to a small quadruped found in northern Europe and America, particularly in Siberia. Its fur is snow white, with the end of the tail a jet black. When it is used for ornamental purposes, extra tail tips are attached at intervals on the white.

Ermine is chiefly the fur of the nobility and, therefore, is often called *Royal ermine*. The weasel and ferret closely resemble ermine and consequently are often used in imitation of it.

59. Fox.—There are several kinds of fox furs, many of which are dyed pelts and are known as blue, gray, kit, Yukon, and brown. The white fox is a bleached fur.

The best grade of *blue fox* is more of a pinkish tan than blue, but there are several different tones of blue in the dyed pelt. *Gray fox* is found from Pennsylvania southward, and, as its fur is short, the pelts are cheap. *Kit fox* is a yellowish gray with black-tipped tail, and is found on the plains of North America. Of *red fox* there are two varieties, North American and European. They are brownish red above with some white underneath. *Arctic fox* varies from bluish gray to white. *Cross fox* is a North American fox with a dark cross-shaped mark on its back. *Silver fox* has hairs that are white toward the tip but black at the tip point.

60. Kolinsky.—The term kolinsky is applied to the Siberian polecat or mink. The fur is soft and of a rich brown shading.

61. Krimmer.—One of the several furs of the lamb family, known as krimmer, resembles Persian lamb and is prepared from the fleece of lambs raised mostly in the Crimean Peninsula. An excellent imitation of this fur is the woven fabric called *astrakhan*.

62. Marten.—A rather popular fur is that of the marten, an animal of the weasel family. The best pelts come from Labrador

and are of a rich, dark, coffee brown. Pelts of a lighter color are of an inferior grade.

63. Mink.—One of the most valuable of domestic furs is mink. The choicest skins are of a blue-black color, but those that are seal brown, with small white spots underneath, are the most used and indeed vie with marten and sable in richness and elegance. The best grades come from Nova Scotia, Maine, and Labrador. The pelts from the middle and northwestern states are pale and coarse in texture.

Mink is used for trimming purposes and to make entire hats in combination with other fabrics.

64. Moleskin.—A flat, velvety fur that is next to seal in beauty and richness, comes from a small underground animal, the mole. It can be used in the construction of entire hats or in combination with other fabrics; also, it is excellent for appliqué work.

65. Monkey Fur.—Generally speaking, the term monkey fur represents the fur of both the monkey and the mountain goat. Both of these animals have long hair of uneven lengths, the natural monkey fur being fine and silky, while that of the goat is rather coarse. When cut in narrow strips, monkey fur is used as a trimming in many novel ways, such as along the center of quills or for pompons and feather-like fancies. It can be dyed any color desired and is particularly adapted to use as a fringe when this style of trimming is in vogue.

66. Muskrat.—A fur very well known in the United States is the muskrat, the annual catch of skins varying from three to five millions. The fur is medium brown in color, fine, thick, and silky, and is used extensively by hatters.

A variety of black muskrats from Delaware and Maryland commands double the price of the ordinary muskrat.

67. Nutria.—From South America comes a soft brown fur, nutria, which is between the beaver and the muskrat in size of pelts and in value. Some grades are difficult to distinguish from beaver, but the wearing qualities are much inferior, and many pelts are unsound.

Since the wear on hats is not great, nutria is extensively used in making entire hats and in combination with other fabrics. Also,

in its natural color, it is used successfully for children's caps. As nutria is generally employed as a substitute for beaver, it is most frequently used in its natural state, but it can be dyed and dressed to imitate sealskin.

68. Opossum.—A fur that is found only in Australia and America is that of a species of opossum about the size of a cat. It is a short, medium-fine, gray fur with coarse white overhairs.

In the millinery world, opossum is used to trim hats to make them correspond with coats, collars, or neck pieces.

69. Sable.—The sable, like the marten, belongs to the weasel family and furnishes a pelt noted for its elegance and luster. The sable in most common use is dark brown with lighter head and throat and short black paws. Russian sable, the most costly, is a rich bluish black and is often associated with mourning.

70. Sealskin.—The fur known as sealskin is a soft, silky, black fur that is used extensively in this country in the making of entire hats and caps to match coats and wraps. This fur is graded according to the compactness, fineness, length, and gloss of the fur, also the great skill and excellent workmanship required to dye and match the skins.

Of all fur, sealskin is the least attractive when taken off the animal. The fur is completely covered by a gray brown and grizzled overhair, which has to be removed by a process that requires a vast amount of patience and skill. The removing of this overhair is accomplished by warmth and moisture, which soften the roots and enable them to be pulled out.

Originally, the skins were dyed by dipping them into a vat, but, as the dye quickly rotted the skin, another method had to be found. Now, the dye is applied by means of a stiff brush, the skin is then rolled up with the fur on the inside, and after a short time hung up and dried. From eight to twelve coats are required in order to obtain the right color. The secret of the dye is held by two houses in London where the skins are shipped after being caught.

Seals have become extinct in so many places where there formerly were millions that the Canadian and United States governments have entered into an agreement which prohibits hunters from taking in any season more than 50,000 pelts from Bering Strait, the only

place where seals are found in any numbers. Even under this restriction, there is great waste since seals are shot in open sea, and out of every seven shot, six sink before they are reached.

Under the circumstances, it is fortunate that *dyed muskrat*, or *Hudson seal*, makes an excellent imitation of Alaskan seal.

71. Squirrel.—One of the most popular furs is the delicate gray, or gray and white, fur of the squirrel, a domestic animal of slender form with long, bushy tail. It is a beautiful soft, silky fur, which can be used for entire hats or in combination with other materials.

CHAPTER III

ALL-YEAR FABRICS

THE INFLUENCE OF CUSTOM

1. Aside from the straws and composition braids which are suitable for summer hats and the heavier fabrics that are used for winter wear, there is another group of fabrics that are used in the development of hats and that, by custom, have been made wearable at any season. For instance, fine thread laces and maline are used not only on dainty summer hats, but very often as a trim on a fur or a velvet hat. Conversely, fur is sometimes very smart as a trim on a lace hat, while usage has made a very transparent lace hat with a flange and crown of velvet quite appropriate in severely cold, as well as in very warm, weather.

When hats are developed entirely of lace, maline, and metal tissue, or lamé, they are introduced during different seasons for dress-up, or formal, wear, the trimming varying with the season. During the spring and summer seasons, they are usually trimmed with flowers or self-fabric, and when designed for winter wear, they invariably partake of plumage, fur, or velvet as the embellishment, thereby making the hats seasonal or adapting them to the period in which they are worn.

Satins, bengalines, and silks of all weaves, also ribbons, are used more or less throughout the year in combination with either velvet for winter or straw for summer. Also, these fabrics are used for entire hats to be worn between seasons, those periods of time that come just before the definite spring and fall styles are shown.

Silks, ribbons, and laces, therefore, constitute the range of materials in good taste at any time of the year. These general divisions are used in this chapter, and under them are listed, in alphabetical order, the most popular and practical staple and novelty goods for all-year millinery.

SILKS

CULTURE AND MANUFACTURE

2. History of Industry.—Chief among the all-year fabrics is **silk,** a fine, delicate, glossy, fibrous substance produced by the larvae of silkworms to form their cocoons. To an empress of China, in approximately 2700 B.C., tradition ascribes the discovery of the possibilities of the silk fiber, which she unwound from these cocoons and wove into rich webbing. For this service, she is worshipped as the "Goddess of Silkworms," and each year the feeding of the silkworms forms a part of the festival in her honor.

For over three thousand years, the Chinese kept their secret so well that the people who bought the silk thought that it came from flowers or from fleece growing on trees.

Then, in the 6th century, during the reign of Justinian I, the contemporary historian, Procopius, ascribes the learning of the secret to two Nestorian monks, who, under royal command, went to China for this purpose. When they returned to Rome, they took with them a knowledge of the industry and several thousand eggs secreted in their hollow staffs. This story is full of romance, but is difficult to understand for, during such a long journey, the eggs would be expected either to hatch or to die.

Through many historians, we learn that silks were known to the Greeks and Romans long before this time. For example, by A.D. 16, silks had become so popular among both sexes that the Roman Senate decreed that they should be worn by women only. With all probability, however, these silks were imported goods, and we know them to be of enormous price, in the first century a pound of silk equaling a pound of gold. In 176, when the public treasury of Rome was exhausted through long wars, state finances were set straight by selling at public auction the silk robes and scarfs of the empress.

3. For hundreds of years, various countries considered the silk industry the surest road to prosperity. Several attempts have been made to establish silk industries in North America, but the climate is such that the raising of the silkworm and the mulberry tree, which forms its food, is not profitable. America's part is played in the weaving of raw materials into the finished product.

4. Formation of Cocoons.—The first stage of silk culture is that of the egg, a tiny yellow one hardly $\frac{1}{8}$ inch in length, the hatching of which requires ten days. Then the larva comes, a black worm $\frac{1}{8}$-inch long and having sixteen legs. This worm feeds on the leaves of the mulberry tree and increases rapidly in size, molting his skin four times, until he is finally about $1\frac{1}{4}$ inches long. Then he looks for a quiet corner where he spins his cocoon by moving his head and casting the silken fibers in the shape of a figure 8 until the cocoon is entirely formed. He is out of sight within a day's time, but he continues to spin for from two to five days. In three more days, the worm becomes a chrysalis.

If moths are desired for breeding purposes, the perfect cocoons are chosen and the chrysales are allowed to come to maturity. But if the cocoons are to be used for silk, they are "stowed," which means that the chrysales are killed by heat. This is necessary because, if they are allowed to penetrate the cocoons, the fibers are broken.

5. Silk Manufacture.—In the manufacture of silk, the cocoons are placed in warm water to soften the gum. The broken outside fibers are moved, and, after the ends of from four to eight cocoons are collected to form a sufficiently firm thread, they are passed through a guide onto a reel.

The silk is next skeined and sorted according to color and then pressed into oblong packages called *books*. It then goes to a manufacturing plant, where, after another sorting according to fineness, it is soaked for 10 or 12 hours in warm soapsuds in order to remove as much of the natural gum as possible, the process being known as *scouring*. The skeins are then dried, wound on bobbins, and sent to a doubling machine, which takes a thread from several bobbins and winds these threads on one bobbin by the *silk throwing* process. The spinner twists these threads, the amount of twisting depending on the purpose of the silk.

When silk has undergone the preceding treatments, it is known as *reeled silk*. The waste product from the reeled silk and the fibers of pierced cocoons are cut, combed, and spun similarly to cotton into *spun silk*.

6. After being reeled or spun, preparation for dyeing is made by removing all gum that still remains after the first scouring. When all gum has boiled off, a creamy-white fiber results.

During this process and the previous scouring, the weight of the raw silk is reduced from 5 to 30 per cent. Since the price of raw silk is so high, it is not to be wondered at that ways have been devised to make up the loss. Harmless additions of sugar and sugar of lead were used in the beginning, but the demand for cheap silk has brought about an exaggerated and injurious weighting.

Silk is very absorptive, it being possible to weight or load it up to five times its boiled-off weight. The silk to be weighted is immersed in a series of solutions, with thorough washing between each treatment. The number of immersions is determined by the amount of weighting required. Compounds of tin, lead, and iron in these solutions are most common.

7. One is likely to consider the weighting of silk a comparatively modern practice, but this is not so. In 1594 and in 1603 laws were passed in Germany prohibiting the use of the so-called "devil's dye," which, especially in black, ruined the strength of the silk. In England the earliest known reference to weighting silks dates from 1630, when silk dyers are accused of using "slip of grindstones and dust of iron so that 16 ounces make 36 ounces." Taking these testimonials into consideration, we have the advantage of greater chemical skill.

8. Silk is one of the easiest fabrics to dye. There is no shade, color, nor tint applied to any known fiber but may be repeated in silk. If silks are weighted, they are generally dyed in the yarn, while piece-dyed silks are generally finished without weighting. The dyeing is done in huge vats.

9. The weaving of silk does not differ greatly from that of other fibers. The Jacquard loom is used extensively for the fancy brocades.

Dressing, mangling, and calendering complete the processes of silk manufacture, but it is only the poor grades of silk and the mixtures of cotton and silk that require dressing.

If silks are to be printed or embossed, this stamping is done now between heated, engraved rollers or blocks. In Asia, stencils are used to a great extent.

10. Silk Trade.—Besides giving the first raw materials to the world, China gave also the first fabrics and lays claim to the first of practically all basic silks. Gradually her secrets were stolen,

and often improved upon, until nearly all countries were interested in some line of silk weaving and this industry became subject to much political intrigue and many industrial laws. After Louis XI established the first silk factory at Tours about 1470, the French achieved gradually an incontestible leadership through help from the government. Then France was crippled in 1683 when Louis XIV revoked the Edict of Nantes, which guaranteed religious freedom to Protestants. Thousands of expert silk weavers were forced to seek a haven in other countries, where they established silk mills to the detriment of French trade.

Spitalsfield, center of the English silk industry, dates from this period. Some French Huguenots settled in Georgia and, during the Revolution supplied the Continental Army with sewing silk. Well into the 19th century, such thread was a medium of exchange in Connecticut in place of the rather scarce cash. About 1838, Christopher Colt opened the first silk mill in Paterson, N. J., and this city now turns out more silks than any other place in the world.

TESTS FOR SILK

11. To all persons, a knowledge of how to test the nature of silk is valuable, because practically every one is called upon, at some time, to purchase silk materials. These tests are not at all difficult to apply.

12. One test is to unravel the warp and weft threads and apply a lighted match to them. The way in which the threads burn indicates whether they are pure silk, weighted silk, artificial silk, or a silk-and-cotton mixture. Pure silk fiber will seem to melt, boil, form tiny bubbles, and give off an odor like burning hair or feathers. Weighted silk will hold its natural form fairly well and simply burn. Artificial silk will burn with a quick flash and not leave any globular ashes. Cotton will flash up, then smolder and almost refuse to go out, giving off an odor like burning leaves.

13. Another test for silk is to crush it in the hand and rub a fingernail diagonally across it. If it crushes and wrinkles when squeezed and if the threads separate when the finger nail is rubbed across it, it is not a good quality to buy, for it will not give satisfactory wear.

Still another test is to hold the silk up to the light to see whether there are any pinholes. Such holes are caused by the action of metal salts used in weighting.

VARIETIES

14. Armure.—The dull-finished millinery fabric that goes by the name of armure takes its name from the suggestive style of its weave. *Armure* is the French term for armor, which was worn by men in feudal times. It was made of small metal plates, which overlapped each other like fish scales so as to be flexible and to give with every movement of the body.

Armure silk is an imitation of this armor, the surface ridge of the pattern always forming a small diamond or other angled figure. There is also a reversible satin armure that is heavier than armure silk. The silk varies in width from 22 to 50 inches and is especially good for mourning purposes.

Bengaline
FIG. 1

15. Bengaline.—A heavy, corded silk known as bengaline is illustrated in Fig. 1. It is made of worsted and silk-warp threads and has a crosswise series of cords in its weaving, separated by herring-bone diagonal lines. The worsted forms these cords and is entirely covered, or concealed, by the fine silk-warp threads so that the wool is not exposed from either surface. While bengaline is occasionally used for mourning, it is a trifle more lustrous than armure silk. It comes in widths from 18 to 40 inches.

16. Canton Crêpe.—One of the most satisfactory crêpes is Canton crêpe, which is made of Canton silk and raw silk reeled in very small quantities from very domesticated cocoons in southern China. The fiber is light and weak, but regular, and is woven over a silk or cotton filling, which forms a cross-rib. It is similar to crêpe de Chine, but heavier. Its standard width is 40 inches.

17. Charmeuse.—One of the most popular silks is charmeuse, a very light, satin-faced fabric that comes in twill weave. Some-

times it has a filling combined with crêpe-de-Chine twist. The fabric is dyed in the piece and has a soft finish. Its widths are 36 and 40 inches.

18. Chiffon.—No material gives a more airy effect than chiffon, a very light, sheer, millinery fabric woven with about the same-size silk yarn in the warp and in the filling. It is transparent silk gauze, woven so fine that ordinary print may be easily read through it. Three widths, 20, 40, and 45 inches, can be had.

19. China Silk.—The term China silk is applied to a light-weight fabric of several qualities. The real silk is woven in China on the primitive hand loom. The weft and warp are the same size and are woven evenly, producing a natural luster. Occasionally there are faulty-looking spots from the use of threads of different sizes.

There is, also, in the United States, a machine-made silk that is called China silk, but this imitation lacks the soft quality of the hand-woven variety. Also, it does not have the nubs that distinguish the real silk. The usual widths are from 24 to 36 inches.

20. Ciré Satin.—Any ordinary satin, having the face waxed and processed so as to produce a bright, shiny finish, is called ciré satin, *ciré* being the French term for wax. This fabric is also called *stovepipe-polish satin* and *shoe-black satin*. It can be purchased in widths from 24 to 40 inches.

21. Crape.—The term crape is the special name for a thin, transparent fabric having long, parallel ridges. Black in this fabric has such a somber appearance that it is favored for mourning purposes. Crape can be secured in 18-, 27-, 36-, and 40-inch widths.

All mourning, or "hard" crapes, have these parallel ridges, which are formed by pressing the fabric between heavy steel rollers, the surface of one of which is creased and indented to produce the pattern desired.

22. Crêpes.—There are several crêpes that are favored for millinery usage, all of them possessing to some degree the crinkled effect, which is caused by the peculiar way in which the weft threads are twisted and woven.

The term crêpe is the French word for crape and is the name more common in designating materials. There is no doubt, how-

ever, that China is the originator of this fabric, which puzzled experts of Europe for years. Finally, through their trade connections with the East, the Italians learned the secret, and they, in turn, tried to keep the secret of its manufacture for themselves, one of their laws forbidding the emigration of their silk weavers. But the Italians were deceived as they first had deceived, when Jacques Dupuy, a Frenchman, managed to learn enough of the manufacture of crêpes to enable him to establish the industry in Lyons, his native city.

23. Crêpe de Chine.—The best known of the crêpes is crêpe de Chine, a very fine light-weight fabric made with silk warp and closely woven from silk or "hardspun" worsted filling. The silk filling is used in the finer grades. Crêpe de Chine in black, on account of its dull finish, is especially appropriate for mourning wear. The usual width is 40 inches.

24. Drap d'Alma.—In black, drap d'Alma is used largely for mourning purposes. It is a soft, closely woven, double-diagonal fabric in wool or silk and wool, manufactured from 50 to 56 inches wide.

25. Duchess Satin.—The term duchess satin is applied to a fine, stout, and very lustrous all-silk fabric, woven in eight-end satin weave. It has minute depressions and elevations that give the surface a nicked appearance. It is sold in 36- and 40-inch widths.

26. Faille.—The soft ribbed silk, faille, has a prominent grain or cord running from side to side of the fabric, and can be obtained from 18 to 40 inches wide. It is finished without a dressing and has a very slight gloss, which is more apparent in the light than in the dark colors. One popular kind has a crêpe finish; hence the name *crêpe faille*.

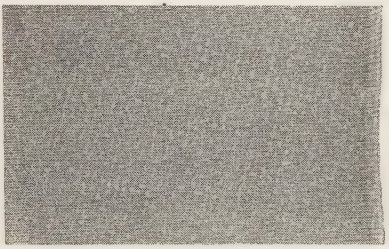
27. French Crêpe.—The fabric known as French crêpe is an all-silk, transparent French fabric, used almost exclusively for millinery purposes. It has a dull crêpe finish, and comes in all colors. Sometimes two and three colors are laid together to produce a changeable effect and at the same time give a two-ply or triple crêpe.

28. Georgette Crêpe.—Georgette crêpe, which is named for the famous Parisian designer, is a sheer, silk, crêpe-finished fabric.

In weave, both the warp and the filling consist of right- and left-hand twists. After the fabric has been taken from the loom, it is boiled in a solution of hot soap-suds to produce the crêpe effect, after which it is dyed in the piece. Georgette comes in 36- and 40-inch widths.

29. Grenadine.—Originally grenadine, which is a gauze-like, wrought silk, was used for making lace. The fabric is woven of coarse, hard-twisted silk into small, square meshes of openwork. It is very transparent and is manufactured of cotton, silk, or wool, or their intermixtures. The fine, silk mesh is used for mourning veils and has a closely woven border on each edge.

30. Gros de Londres.—In Fig. 2 is illustrated a silk called gros de Londres. This name is applied to a light-weight, pliable fabric made with silk filling and silk warp. It is woven with narrow and wider flat-weft ribs, alternating. This fabric is dyed in the piece and is made in changeable warp-print effect. It has a rather glossy finish and can be used for dresses and hats. It comes in 36- and 40-inch widths.



Gros de Londres
FIG. 2

31. Grosgrain.—As its name denotes, grosgrain is a firm, close-woven, grained silk. It is woven plain with a fine, silk warp and cotton filling, producing cross-ribs from selvage to selvage. As this fabric is finished with but a slight luster, it is much used in mourning millinery. It comes in widths from 18 to 40 inches.

32. Lacquered Satin.—The trade name, lacquered satin, designates a grade of ciré satin that is treated to a coat of lacquer so as to make it resemble a light-weight leather.

33. Messaline.—The material known as messaline is a light-weight, closely woven and lustrous silk fabric, manufactured in five-harness, satin weave. The usual width is 36 inches.

34. Moiré.—The word *moiré* is a French term for a water-wave and so is applied to a watered or clouded silk, as shown in

Fig. 3. This watered effect is produced on grosgrain and taffeta by weaving the fabric in double width; that is, one piece folded in two. After it is properly folded, the silk to be moiréd is wet slightly and then submitted to enormous pressure, generally in a hydraulic machine. As the pressure applied on the material is uneven, the grain is flattened in the parts desired and the result resembles waves or moisture run in strange lines.

For *moiré antique*, the design is engraved on brass rollers and the silk drawn between the engraved and smooth rollers. In this silk, the watered effect is scattered; also, it is longer and in finer, but not less effective, designs. Moiré comes from 18 to 40 inches wide.

35. Mousseline de Soie.—*Silk muslin*, or mousseline de soie, is used for the same purposes as chiffon, but is distinguished from it by being stiffened in the finishing processes. It is made of several grades and in widths from 14 to 45 inches.

Moiré
Fig. 3

36. Paisley.—One of the fabrics that is popular from time to time is the soft, pliable silk that imitates the intricate colorings and designs of paisley shawls, at one time made in Paisley, Scotland, in imitation of cashmere, or kashmir, shawls.

Paisley comes in 18-, 27-, 36-, and 40-inch widths, and sometimes is confused with *Persian*. As a millinery material, it is generally used in combination with other materials to make or trim hats to match dresses or blouses.

37. Rayon.—For several years, *artificial*, or *imitation*, *silk* has been marketed under various trade names, the latest being rayon. The principle was first mentioned in 1710 by Reaumur, the French scientist who also invented a thermometer. He first thought that spiders could be used to produce a useful fiber instead of a web and a few years later touched on the theory of man's being able to produce a filament along the same principle as the spider.

From that time, various attempts have been made to produce an artificial fiber. One man argued that, since silk worms feed on

mulberry leaves and spin silk, the wood of the mulberry tree would produce artificial silk fiber. Other scientists turned to rubber, and still others to collodion. Also, because silk is an animal product, some scientists tried to change wool to long filaments.

38. Finally, in 1884, the first useful artificial silk fiber was produced by a French count, Hillaire de Chardonnet. Part of his process is still used in the newest method, which has produced not merely an imitation silk, but an entirely new, man-made textile.

The raw material in use is either wood pulp or cotton fiber. This is cooked with live steam and the assistance of chemicals, and then washed and freed of all foreign matter. The next process bleaches it white. Running it through rolls then squeezes out the water, and compresses the fibers into sheets. These sheets are cut into squares and mercerized by soaking in a solution of caustic soda. Excess liquor is forced out, and the sheets are torn in small particles and kept at an even temperature for about 48 hours. They are then revolved in a large churn containing carbon bisulphide. The substance thus formed is placed in a weak solution of caustic soda, beaten, and mixed into a uniform mass, which is in liquid form. This stands in vats to age. From the vats, it is filtered out and forced through holes in a plate immersed in acid. The size of the holes regulates the thickness of the fiber, and the long filaments resulting are then ready to be spun by machine, and dyed.

39. Before artificial silk reached its present desirable form, two disadvantages had to be overcome; inflammability and disintegration when wet. About 1895, after several accidents had occurred, processes were perfected whereby the fiber was "denitrated," or made less inflammable and no more dangerous than any other textile. Scientists have tried also to perfect the fiber so that it will be as strong when wet as when dry, but this disadvantage, although lessened, has not been entirely overcome. Rayon, therefore, must be handled very carefully when wet. An offsetting advantage, however, is that it never turns yellow.

40. Rayons come in many weights and weaves in direct imitation of pure silks, and in many mixtures with silk, wool, or cotton. For years they have been used in millinery, not only in lightweight grades for lining, interlining, or "backing-up" purposes, but also in better grades for entire hats.

41. Satin.—The name of satin is believed to be the Arabic version of that of a Chinese port from which this fabric was exported. It is one of the oldest and richest of Chinese silks, and is often mentioned in medieval romances as the garb of the hero, heroine, and the royalty.

42. Perhaps no material is more popular as a millinery fabric than satin, which is a fabric of close texture with a glossy face and dull back. The weft, or back, in ordinary qualities, is cotton or linen, while in the finest grades it is all silk. In all qualities, it is admirable for draping and for fitting purposes as well.

When first taken from the loom, the face of the satin is somewhat fuzzy and has to be "dressed" or finished. This is done by rolling it between heated metal cylinders, a treatment that produces the high luster and also removes any unnecessary floss. Sometimes the face of the satin is ornamented with designs executed in taffeta, twill, metal pile, or rich, heavy, velvet brocade; and sometimes, satins, both of the baronet and of the duchess kind, are pressed between hot cylinders so as to produce different embossed patterns, wrinkles, or puffy designs. After this treatment, satin is called *gauffré satin*.

43. Shoe Satin.—The satin known as shoe satin is a very strong, durable fabric having a dull back and a smooth, dull, but glossy, face It is similar to the fabric used in making footwear.

44. Silk-Warp Crêpe.—The inexpensive crêpe called silk-warp crêpe, also known as *cotton crêpe*, is a cotton fabric with a silk-warp thread. It is used chiefly for inner-linings under any of the sheer-silk fabrics.

45. Surah Silk.—The light-weight silk fabric known as surah silk is woven 36 inches wide, either in fine basket-weave effect or in some twill producing diagonals. This fabric is dyed in the yarn, and the best grade is reversible. As it bears a Hindoo name, it is probably of Hindoo origin.

46. Taffeta.—The name taffeta is supposed to have been derived from the Persian word *taftah*, meaning *twisted*, and was originally applied to all plain silks to distinguish them from the corded and twilled weaves, for it is a plain and closely woven smooth fabric,

alike on both sides. It comes usually as a single fabric, 36 or 40 inches wide, solid-colored, changeable, and in innumerable figured and plaid effects.

For millinery purposes, the heavy triple taffeta is preferable, especially if it is to be fitted on the frame. However, for trimming, the lighter-weight taffeta may be used. Taffeta is often used as a foundation for velvet, gold brocades, and for the reverse side of satin ribbons.

RIBBONS

ORIGIN AND MANUFACTURE

47. Meaning and Origin.—The main difference between silks and ribbons lies in the edge and the width, as the weaving and general appearance of the two are identical. Silk has a selvage, while ribbon has a cord finish along the edge. Also, ribbon is a band less than 14 inches wide, and it is this narrowness that determines the name. The *bands* were narrow like a rib; hence the origin of the word *ribband*, the old English and the present French term for our *ribbon*.

Perhaps the technical limitations of looms in the beginning were directly responsible for the origin of ribbons. The first looms were narrow, and for this reason there is little doubt that narrow fabrics, those which are called ribbons today, were turned out before wide fabrics were woven.

48. Growth of Popularity.—After the invention of wide looms, there arose great rivalry between fabric and ribbon weavers. Ribbon weavers were considered detrimental to the interests of cloth weavers, so much so that in Leyden, Holland, in 1621, city magistrates prohibited the operation of ribbon looms, and later similar orders were issued in Amsterdam, Spanish Netherlands, Nuremberg, and neighboring trade centers.

49. Studying the customs and costumes of the 17th and 18th centuries, one can easily see why this jealousy should exist. People went ribbon mad, and in many cases indulged themselves to such an extent in this luxury as to spell financial ruin. Although the wearing of so much ribbon was a French style, it spread all over Europe

and her colonies. Parliament thought it wise to restrict the use of ribbons to the nobility, and even in America, ribbons became a subject of legislation, for in 1639 an order was issued in Massachusetts forbidding "people of low estate to wear knots of ribbon."

50. Industries.—France and Switzerland supply the best ribbons because hand looms, which produce a perfectly even weave, are used there almost exclusively. The Zurich loom, the best one known until 1818, could weave several ribbons at a time and be operated by one person. The width of the ribbons, however, was limited to $3\frac{1}{2}$ inches, and brocaded ribbon could not be woven on it.

In 1818 at St. Etienne, France, manufacturers patented a loom having a reciprocating movement permitting wider ribbons and a larger number of them to be woven at the same time on a single loom. In 1829 the same manufacturers combined their loom with the Jacquard loom for the production of fancy effects. In St. Etienne, there are 18,000 hand looms distributed among the homes of French peasants.

In the United States, the seat of the ribbon industry is in Paterson, New Jersey, where specially designed looms, called ribbon or needle looms, are utilized. Domestic looms turn out about half the quantity of ribbons needed for home use.

51. Raw silk is imported from Japan, Italy, and France, much of the silk from Japan being pure white and that from Italy being a gold color. Before the raw material can be made into ribbons, it must be thrown, dyed, and twisted. The utmost care must be taken in the weaving, for a broken thread or a difference in temperature spoils all.

52. Widths.—Strange as it may seem, it is true that the width of ribbons has always been a source of trouble. In former days, when rulers and legislators felt called upon to regulate everything, laws were made forcing manufacturers to make merchandise in certain ways only. When the ribbon trade boomed in the 17th and 18th centuries, attention was turned to the widths of ribbon. For instance, the law of 1664 of France permitted four widths made from waste silk. Later the regulations of Paris recognized eleven widths of silk and nine of wool, and no more. Any manufacturer

who disregarded these limitations could not carry on business without paying a fine.

53. According to present-day commercial ruling, there are two methods of determining the widths of ribbons. Among manufacturers, the widths are stated in lignes, a French measure. Gauges marked in lignes are made, so that the purchaser of ribbons can measure them and determine just how many lignes there are in each width of ribbon. Fig. 4 shows a gauge or rule graduated in lignes along one edge and in inches along the other edge. The relative sizes of the ligne and the inch can readily be seen in the illustration, which shows the actual sizes.

54. The more common way of designating the various widths of ribbons, the method known to buyers, is to use numbers. These numbers range from 1 to 300, the smaller numbers indicating the narrower ribbons and the larger numbers, the wider ribbons. This method has come down to us from the English who used as a gauge the old English penny, which was about the size of our silver dollar. A ribbon the width of one penny set up edgewise was called No. 1 ribbon; a ribbon the width of two pennies was called No. 2 ribbon; and so on.

The more modern ribbon gauge, illustrated in Fig. 5, is the one that shows the widths of satin ribbon corresponding to the different numbers as adopted by the most reliable, up-to-date manufacturers. Unfortunately, however, some ribbon manufacturers ignore this gauge and use one of their own, in which the various widths are narrower than those corresponding to the several numbers in Fig. 5. Thus, a No. 100 ribbon made by one manufacturer may be considerably narrower than a No. 90 made by another manufacturer, whereas it ought to be wider.

55. Because of the difference in standards, then, the purchasing of ribbons by merely stating the number may result in disappointment, as the purchaser may buy a ribbon much narrower than she requires. To avoid error and trouble of this kind, it is a good plan to cut a paper gauge the width of ribbon desired and then to buy the ribbon that corresponds most nearly to this gauge; or, if desired, the width of the ribbon required can be stated in inches and fractions of an inch, and the nearest corresponding width of ribbon can then be obtained.

No.1
No.1½
No. 2
No. 3
0 FRENCH LIGNES 6 12 18 24 30 36 42 48 54 60 66
1 2 3 4 5 6

FIG. 4

No. 5
No. 7
No. 9
No. 12
No 16
No 22
No. 40
No. 50
No. 60
No. 80
No. 100

FIG. 5

56. Lengths or Bolts.—Manufacturers, as a rule, put 10 yards of ribbon in a bolt, and base the price on the width in lignes. French manufacturers mark their bolts of ribbon 9 *meters*, but 9 meters is nearly equivalent to the American quantity of 10 yards, for a meter is 39.37 inches. The exception to this general rule is when a ribbon is an unusual quality or width; then the quantity is lessened, and a bolt will contain 5 yards.

USES

57. Early Fashions.—When ribbons were first used, they were made of gold and silver threads and were considered articles of great luxury, the height of fashion, and the fulfilment of a supreme desire. In the 17th and 18th centuries, ribbons in profusion were worn by the men of Europe. In fact, one of the requisites of a gentleman was to have at least 100 yards of ribbon on him. The terms *blue ribbon* and *red ribbon* come down to us from those times, a blue ribbon being the badge of the Order of the Garter and a red ribbon designating the Order of Bath.

During the reign of Louis XIV, of France, in the latter half of the 17th century, men of fashion wore breeches consisting of nothing but loops of colored ribbons. Another rule of fashion was to have one or more bows of ribbon wherever there was a slash or puff. The person who wanted to be the picture of fashion had ribbon bows on hat, hair, collar, bodice, sleeves, breeches, petticoats, footwear, and even walking sticks. If any place was skipped, it was immediately sprinkled with bows. And the bows even came to serve as a lover's language, the color and position of a bow, or lover's knot, expressing all degrees of love, hate, and indifference.

58. Present-Day Uses.—Although ribbons have passed out of favor for men's apparel, they have held their own as an essential part of women's wear. Both for decoration and for utility, their importance can hardly be overestimated. There are few feminine garments that cannot be made more beautiful by being tastefully trimmed with ribbons, and, as far as millinery is concerned, there is scarcely a hat that does not use ribbon, in one form or another, in its construction.

In the millinery world, ribbon was formerly used exclusively for trimming purposes, but in recent years it has been used extensively

in constructing entire hats, also in combination with straw or other fabric according to the season of the year in which the hat is to be worn. One of the most popular forms of the ribbon hat is the frameless, or semisoft, pull-on, which is youthful, comfortable, and practical for sports and informal wear.

VARIETIES

59. Staple Ribbons.—The ribbons most commonly in use are taffeta, grosgrain, moiré, satin, and velvet. Taffeta, grosgrain, bengaline, moiré, and satin ribbons are of the same texture and weave as the all-over materials of the same name.

The more expensive are generally the *double-faced* ribbons, which are sometimes alike on both sides and are made of the better grades of silk, closely woven and highly finished. *Velvet ribbon* is one in which the face is of velvet and the back of satin, linen, or taffeta.

60. Novelty Ribbons.—There are various novelty ribbons, which are subject to seasonal influences more than are the staple kinds.

Two-toned ribbon is any satin ribbon that has a face of one color and a back of another.

Changeable ribbon is woven of two different colors, while *nacré ribbon* is woven of three different colors. Taffeta generally forms the foundation of all of these.

Any ribbon that is composed of the shadings of one color, generally in stripes, is known as *ombré ribbon*. *Metal ribbons* are woven with gold or silver threads or with metal threads of the colors of precious stones. Some ribbons are made of transparent materials, or gauze-like textures, often with satin stripes running lengthwise. Still another type of novelty ribbon is *stovepipe-polish ribbon*, which has the same lacquered finish as ciré satin.

Many ribbons are known by their patterns. For example, the pompadour or flowered designs, the polka-dot, and the brocaded are favorite patterns. Besides these, there are the striped, checkered, printed, and plaid varieties in taffeta, satin, and grosgrain.

Plissé ribbon is a novelty having plaiting between firm selvages. It takes its name from the French term meaning plaited.

LACES

ORIGIN AND GROWTH OF LACE MAKING

61. Origin.—No material is more distinctly feminine than lace and no other material can lend quite its softening effect and beauty. Like straw, lace was one of the first materials used in developing head-dresses, or hats.

Lace making, as a distinct art, was in the process of being evolved before the 6th century, for during that century both English and Italian nuns were noted for their lacy cut-work. Monks, also, gave much of their time to the making of lace for the sanctuary.

62. There are two theories for the origin of laces and both very likely are right. It is believed that lace was developed from both net and a combination of cut-work and drawn-work.

In substantiation of the first theory are knotted nets of fine thread. Some, circular in shape and apparently a form of cap, were discovered in Egyptian tombs and are considered approximately 2000 years old. These are now in the British Museum, London. Other knotted nets, untold centuries old, are among the antiquities of Peruvian civilization. These are now in the Metropolitan Museum, New York. Both of these sources of nets show intricate foundations on which many laces later were developed, macramé being one example.

This early lace, or net, differed from netting only in that netting had its diagonal threads knotted as they were twisted around the straight warp theads. This netting was made on the same principle as the fish nets used by Babylonian and Egyptian fishermen of Biblical times.

63. To uphold the second theory, ancient specimens of a cut-work and a drawn-work have been found in Egypt, Asia Minor, and the Ægean Islands. These specimens are apparently a cross between an embroidery and a lace. Parts of the plain foundation are cut away or have threads pulled out. The open spaces are filled in with various bars, the latter ones being more elaborate, and where certain threads are pulled out the remaining threads are caught into groups and points forming lace-like designs. Carrick-macross lace is an evolution of this cut-work.

64. The first nets and laces were made by hand, the patterns for the intricate lace often being passed down from family to family. The fact that these patterns were kept a secret and could not be reproduced by others accounts for the almost priceless value of the real lace treasured now by royal families, museums, and lace collectors. Sometimes in Italy hand-made point laces were made up of different pieces that were made by peasants in their cottages; that is, in one cottage leaves would be made; in another cottage, the flowers; and in another these would be united in a delicate web by still other workers.

All this work was tremendously laborious. Sometimes it took an expert woman many years to finish a single lace scarf. She usually received only a pittance for her labor, and often ruined her health and eyesight.

65. Hand-Made Laces.—It was not until the 16th century that lace, as it is now known, was made. From this time on, with Italy and Flanders as the first principal centers, two distinct types of hand-made laces, needle-point and bobbin laces, developed.

66. To Italy is given the credit of making the first point lace, as it is definitely known that needle-point lace was made and worn there before 1500. In fact, the word *lace* comes from the Italian word *laccio*, meaning *braid*, *lacer*, or *bowstring*.

Needle-point lace is so called because the designs are sewed on a foundation by means of a needle and a single thread. The design was first outlined on a paper and followed by thread tacked down for an outline. Then the various details, bars, brides, and fillings were filled in by the needle.

67. To Belgium, credit is given for the origin of **bobbin lace,** which was made by Barbara Uttman in the 16th century. The thread for bobbin lace is wound on a number of bobbins and knotted or plaited into various effects on the top of a flat or circular pillow. Pins are stuck into the pillow to mark the points where two or more threads meet.

Originally bobbin lace was made on the fingers, each finger serving as a peg, and for wide lace several hands were needed. The pillow device was introduced to save the fingers, economize on labor, and keep the lace clean. Sometimes bobbin lace is called *pillow lace*, but this is not a well-applied name, for needle-point lace is sometimes made on a pillow.

68. Machine-Made Laces.—In the 19th century, lace came to be made by machinery, when we have the beginning of two kinds of machine-made lace, woven and embroidery.

In 1809, John Heathcoat, an Englishman, invented a machine for making **woven lace.** This was followed in 1813 by the Leavers machine, an improved Heathcoat machine, which does the weaving on two sets of threads, warp and weft. The tension of either set can be changed, permitting either one to be twisted around the other as the design requires. In 1837, through the ingenuity of another Englishman, Samuel Draper, the Jacquard attachment for the weaving of brocaded silk, linen, and cotton, was applied successfully to lace weaving.

Much of the woven lace comes from Nottingham, England, and Calais, Caudry, and Lyons, France.

69. The term **embroidery lace** covers those laces in which a pattern is embroidered on a ground, the ground sometimes being burnt out afterwards. This type of lace is made on the Schiffli machine, which works on the principle of the sewing machine, having two threads, one carried underneath on a bobbin and the other on top in a needle.

Embroidery lace originated with the Orientals, but Plauen, Saxony, and St. Gall, Switzerland, have come to be the centers of its manufacture.

70. The steps forward in the invention and perfection of lace-making machinery have made it possible for exquisite laces to reach a large number of people and to be within their price. With increased demand has come an era of machine lace, so that today the majority of laces are machine-made, reproducing with a fair degree of skill the patterns of old lace that have not been lost.

Of these laces, different ones are peculiar to different countries, and some of these are staple products that are always popular. Others are almost unknown for a few seasons, then suddenly they spring into fashion again—perhaps under a new name.

71. Millinery Laces.—For millinery purposes, machine-made laces are in general use. Although small and medium designs are the ones best suited to this purpose, laces of all descriptions and qualities, in both heavy and fine meshes, serve their purpose at certain times. These may be utilized for entire hats, facings, flanges, drapes, appliqué, and other trimming effects.

LACE TERMS

72. In the subject of lace, as in most subjects, it will be found that there are many terms that are purely technical; that is, terms that pertain exclusively to this particular subject. These must be understood if a thorough knowledge of laces would be had. To make them clear and at the same time enable you to take up the following examples of laces in the most intelligent manner, an explanation of the terms most frequently met with is here given, arranged in alphabetical order for easy reference.

A jours.—The filling or ornamental work introduced into enclosed spaces.

Appliqué.—Either needle-work or bobbin lace in which the pattern is made separately and sewed onto a net ground.

Beading or **Bead Edge.**—The simple heading on pillow lace.

Bobbins.—Small elongated reels, either wooden or bone, on which thread is wound for the purpose of lace-making. Often they are weighted with such articles as beads, coins, seeds, etc.

Brides, Brides Claires, and **Bars.**—Small strips used to connect the parts of a design and employed instead of a groundwork of net. They consist either of threads overcast with buttonhole-stitches or of twisted or plaited threads.

Brides Ornees.—Brides ornamented with picots, loops, or pearls.

Cartisane.—A strip of parchment used to give a raised effect to the patterns in lace. It is covered with silk or gold or other metal thread. As it is not durable, the less it is used the more the lace is esteemed.

Continuous Inner Pearl.—A stitch used in Honiton and other braid laces to ornament the inner side of any leaf that is not filled with stitches.

Cordonnet.—The thread used to outline the designs in lace. Sometimes it consists of a single thread; other times, of several threads worked together; and again, of a thread or horsehair overcast with buttonhole-stitches.

Couronnes.—The cordonnet is sometimes ornamented with stitches known as couronnes. The English form of this term is *crowns*.

Dentelé.—A French term meaning a scalloped border.

Engrêlure.—The edge of a lace by which it is sewed on the material it is to decorate. Same as *heading* or *footing*.

Entoilage.—The French term for a plain mesh ground.

Entre Deux.—The French term for insertion, whether of embroidery or lace.

Fillings.—There are fancy stitches used to fill in enclosed spaces in needle-point and bobbin laces.

Fond.—The ground-work of needle-point or bobbin lace as distinguished from the pattern. Other names for it are *champ*, *entoilage*, *reseau*, and *treille*.

Gimp.—The pattern of lace which rests on the ground or is held together by brides. It is not the same, however, as the material gimp, which was formerly called guipure.

Grounds.—Two forms of ground are found in laces—the *bride* and the *reseau*. The bride ground consists of bars that connect the ornaments forming the pattern. The reseau ground is a net made either with the needle or with bobbins.

Guipure.—Formerly, a lace-like trimming of twisted threads; now, it means all laces having a tape-like pattern on them.

Insertion.—Strips of lace or embroidered muslin or cambric whose edges are both alike.

Jours.—Ornamental devices found in various parts of lace. In Venetian point lace, jours are introduced in the center of the flowers.

Mat or **Math.**—The closely worked portion of a lace; the toile.

Passement.—The pricked parchment pattern upon which both needle-point and bobbin laces are worked.

Pearls or **Purls.**—Bars or brides.

Pearl Edge or **Purl Edge.**—A narrow edge consisting of projecting loops and sewed to lace as a finish.

Picot.—Tiny loops worked on the edge of a bride or cordonnet or used to beautify a flower, as in the case of rose point.

Pillow Lace.—Bone lace, or bobbin lace, made on a pillow by twisting or plaiting the threads with bobbins.

Point Lace.—Properly, only lace made with the point of a needle, needle-point lace. However, the term is often misapplied, numerous laces, such as Point d'Angleterre and Honiton point, being made with bobbins and not with the needle.

Point de Raccroc.—A stitch used to join reseau ground.

Point Plat.—A French term for flat point lace having no raised cordonnet or outline cord.

Pricker.—A short instrument with which holes are pricked in the pattern used for bobbin lace.

Machine-Made Alençon
FIG. 6

Reseau.—Ground of small, regular meshes made with the bobbin and with the needle.

Samplers.—Small samples showing patterns of lace. They originated in the 16th century when not every one could buy pattern books because of their scarcity and high price. They were also used to show the skill of the worker.

Sprig.—A detached piece of lace which is appliquéd to a net foundation or joined with other sprigs by means of bars.

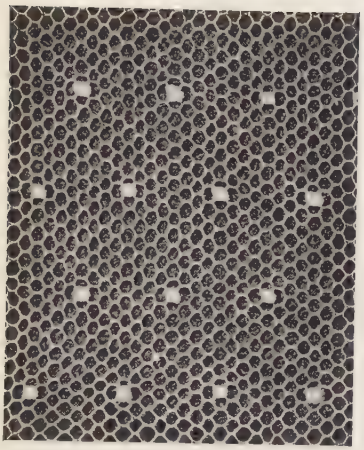
Ties.—Like bars, ties are the connecting threads worked across spaces in needle-point and bobbin laces.

Toile.—The substance of the patterns of lace as distinct from the ground.

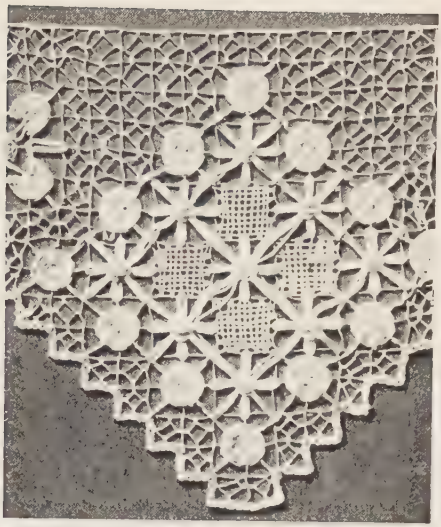
Treille.—Same as reseau.

VARIETIES

73. Alençon Lace.—One very popular lace is Alençon, Fig. 6, a needle-point lace, the ground of which is sheer net and the pattern a corded outline woven in the net with buttonhole-stitches. It is often referred to as *point d'Alençon* or *point Alençon*, and is both hand- and machine-made. In millinery, it is used for lace edges on hats and flat appliqué trimmings on a wide crown.

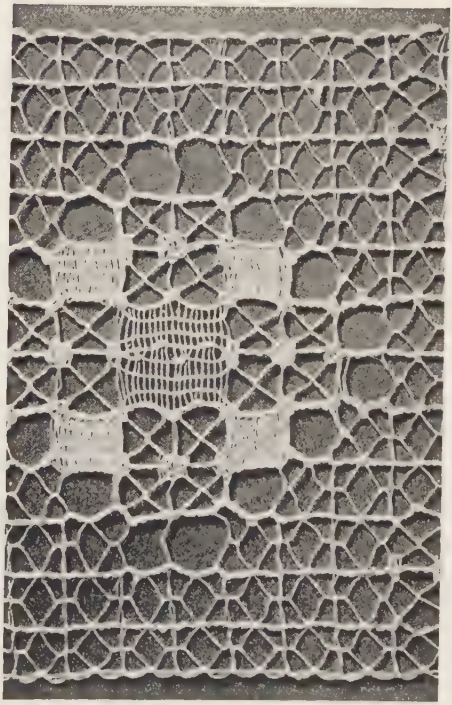


Machine-Made Net



Hand-Made Antique

Machine-Made Allover Lace
FIG. 7



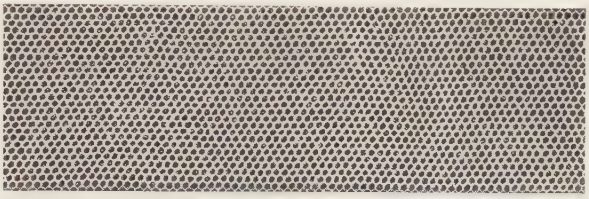
Machine-Made Antique
FIG. 8

Hand-Made Appliqué

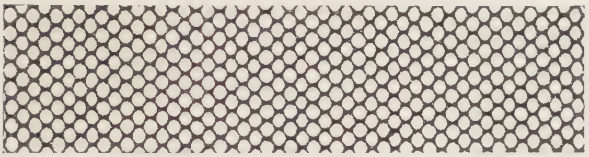
Machine-Made Appliqué

FIG. 9

74. Algerian Lace.—The name Algerian lace is given to a narrow flat lace, made of silver and gold thread.

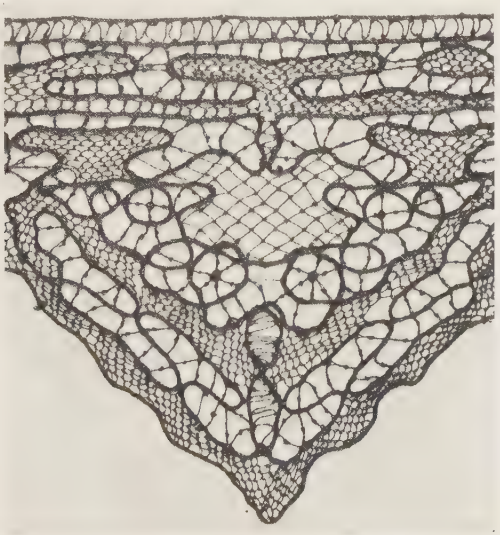


Machine-Made Bobbinet



Machine-Made Tosca
FIG. 10

75. Allover Lace.—Any wide lace that has both edges finished in the same way with a pattern that repeats throughout the width and length is known as allover lace. It may be silk or mercerized



Machine-Made Bohemian
FIG. 11 (*a*)

net with the pattern in silk threads, or it may be cotton net with the pattern in either cotton or silk. The pattern may consist of an

elaborate design or merely a dot. It is used for facings, trimmings, and for making entire hats. Two examples are pictured in Fig. 7.

76. Antique Lace.—The lace illustrated in Fig. 8 is usually known as antique lace, but because the pattern is darned on it, it is sometimes called *darned lace*. It is a hand-made bobbin lace of heavy linen thread in large, open, square, knotted mesh, and is coarse yet very expensive.

Hand-Made Bohemian
Fig. 11 (*b*)

77. Appliqué Lace. As its name suggests, appliqué lace is made by appliquéing designs on a ground. The designs may be flowers or sprigs, either needle-point or bobbin-made, on a ground of machine-made net, or they may be of net or sheer muslin. Belgian appliqué lace, Fig. 9, has very fine mesh with dots sprinkled over it.

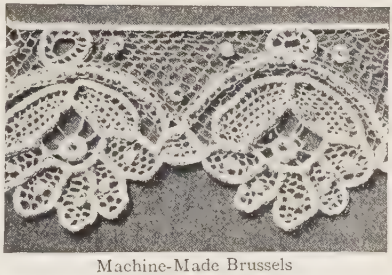
78. Bobbinet.—The value of bobbinet depends on the fineness of the mesh. One variety, called *Tosca net*, has a very open mesh, but is very firmly woven and durable. Fig. 10 illustrates both ordinary bobbinet and Tosca net. These come in 45-, 54-, and 72-inch widths.

79. Bohemian Lace.—Although other laces are made in Bohemia, the term Bohemian lace is applied to one particular

bobbin lace that can be recognized by the tape-like effect that appears in the designs. The patterns are very effective, for they are often in imitation of very old Bohemian designs. Fig. 11 (*a*) and (*b*) contains typical examples of Bohemian lace.

80. Brussels Lace.—The term Brussels lace is applied to a fine bobbin or point lace composed of sprigs appliquéd to a machine-made ground. Special kinds are designated by their designs, the name *Rose point* being given to the pattern containing rose motifs and the name *Point de Gaze* designating a fine, open, and unusually delicate design. Fig. 12 illustrates both hand- and machine-made Brussels lace.

Hand-Made Brussels



Machine-Made Brussels

FIG. 12

81. Brussels Net.—The net known as Brussels net is named after the hand-wrought Brussels lace and distinguished by the fact that the thread is twisted so as to form an open space or mesh. These spaces may be hexagonal or octagonal, depending on the number of threads used.

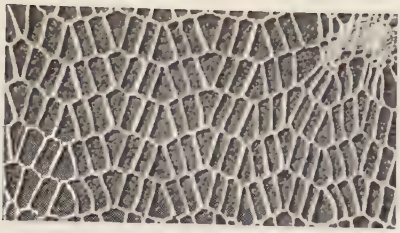
Brussels net comes in several different grades—all silk, mercerized, and cotton—and is chiefly used for making mourning veils. Like other millinery fabrics, its use for making hats is governed by the prevailing fashion.

82. Chantilly Lace.—The name Chantilly is given to two different laces, originally made in Chantilly, France; one a white linen lace and the other a black silk, bobbin lace, as shown in Fig. 13. Both kinds have a fine net ground, the so-called double ground,

Hand-Made Chantilly

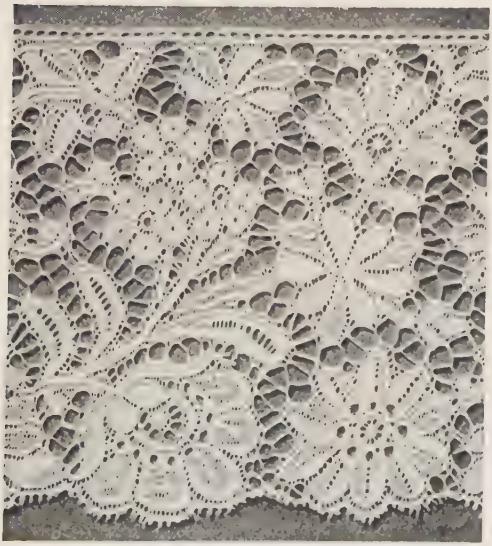
Machine-Made Chantilly

FIG. 13



Craquelé Net
FIG. 14

Machine-Made Duchesse

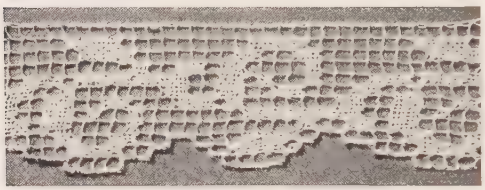


Hand-Made Duchesse
FIG. 15

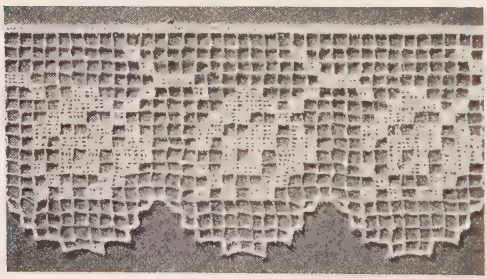
with flat, delicate flowers. No lace is more popular for millinery purposes than Chantilly, for it forms the softest of draped effects on dressy hats.

83. Craquelé Net.—More expensive than plain net is craquelé net, which has a zigzag mesh, as is shown in Fig. 14. The uneven effect and the beautiful designs produce a very attractive lace.

84. Duchesse Lace.—The lace illustrated in Fig. 15 has no net background. Flowers, leaves, and sprays, which are joined by bars or brides, form the design, and in some cases are so closely woven as to give a tapelike effect. Duchesse lace is particularly favored for bridal costumes.



Hand-Made Filet



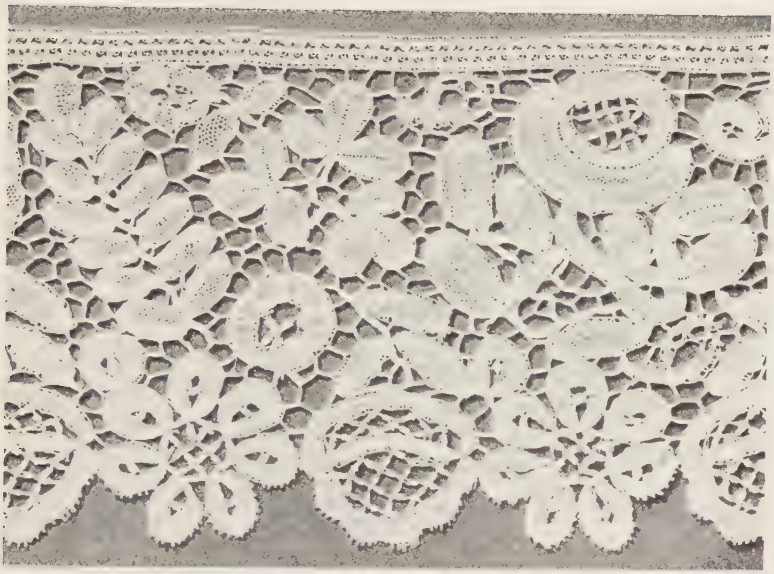
Machine-Made Filet

FIG. 16

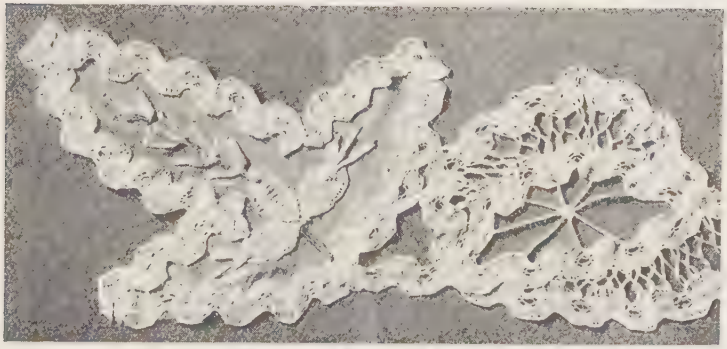
85. Filet Lace. There are several kinds of filet lace, but all have the same general characteristics. A continuous thread is woven into squares and knotted at each corner. The designs have the appearance of being darned or embroidered, as is shown in Fig. 16.

86. Guipure Lace. Originally guipure lace was made of gold and silver threads, the patterns being formed by heavy cords padded with parchment or cartisane; hence, the name guipure, which is derived from *guipe*, meaning a thick cord around which silk is rolled. Gradually, to make the lace washable cartisane was replaced by heavy thread and the cords, by tape. Now guipure lace means any large-patterned, coarse lace, such as the duchesse, Honiton, Maltese, or Venetian laces. It is sometimes called *parchment* or *tape lace*.

87. Honiton Lace.—In Fig. 17 are illustrations of Honiton lace, a pillow lace first made in Honiton, England. This type of lace is of two kinds, appliqué and guipure. *Appliqué Honiton* is composed



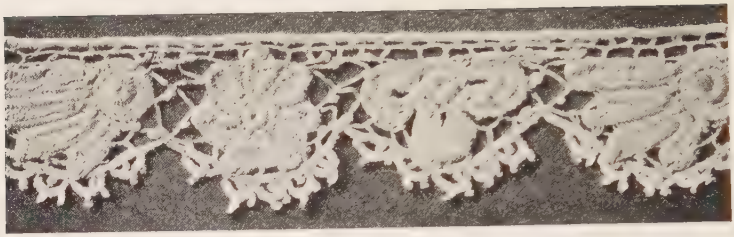
Hand-Made Honiton Guipure



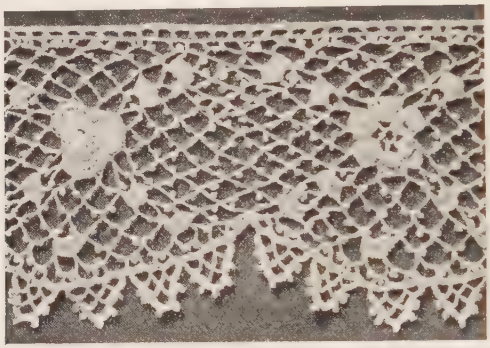
Hand-Made Honiton Appliqué

Machine-Made Honiton

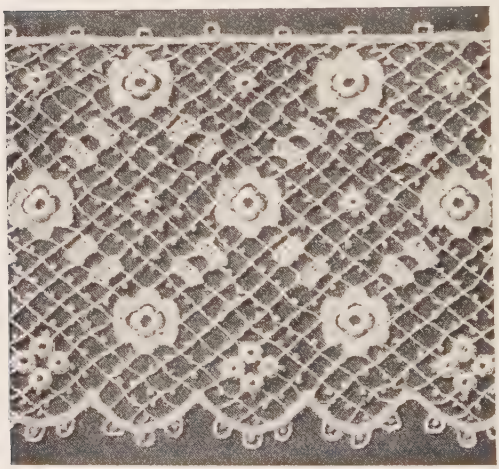
FIG. 17



Hand-Made Irish Crochet



Hand-Made Baby Irish



Machine-Made Baby Irish

FIG. 18

Hand-Made Limerick
FIG. 19

Machine-Made Macramé
FIG. 20

of larger motifs applied to a ground usually of machine-made net, while *Honiton guipure* has its large flower motifs joined by needle-made bars.

88. Irish Crochet.—The best known of crocheted laces is Irish crochet, Fig. 18. Every stitch of the real lace is a buttonhole-stitch formed by the hooked end of a special needle, and this process is imitated closely in the machine-made product. The finer variety, known as *Baby Irish*, is more flat and dainty than other Irish crochet.

Although the best Irish lace is made in Ireland, much lace of good quality comes from Armenia, Austria, Germany, Italy, China, and France.

Machine-Made Maltese
FIG. 21

89. Limerick Lace.—Fancy veils sometimes come under the classification of Limerick laces. This is the case when they are of net with an open pattern embroidered either by chain- or by darning-stitch, as shown in Fig. 19.

Although Limerick lace making as an industry had its origin in the East, it was first established in Limerick, Ireland. The patterns were embroidered on Nottingham net stretched over tambourine-like hoops; hence, the names *tambour lace* and *tambour needle*.

90. Macramé Lace.—Real macramé lace is of Spanish origin. It is a heavy, coarse, and durable lace made by tying threads into

intricate knots to form geometrical patterns from selvage to selvage. An example of the machine-made variety is given in Fig. 20.

91. Maline.—The term maline is a trade term for a very fine hexagonal net usually finished with a little sizing. This fabric is one of the most popular of millinery materials and, therefore, is constantly in use. Although a sheer and gauzy fabric, it has been proved beyond doubt that a good quality of maline will stand a reasonable amount of dampness and hard usage.

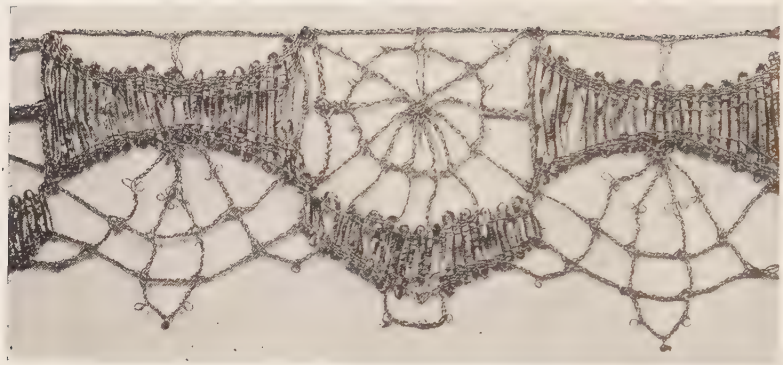
Maline comes in a wide range of colors.

Hand-Made Mechlin

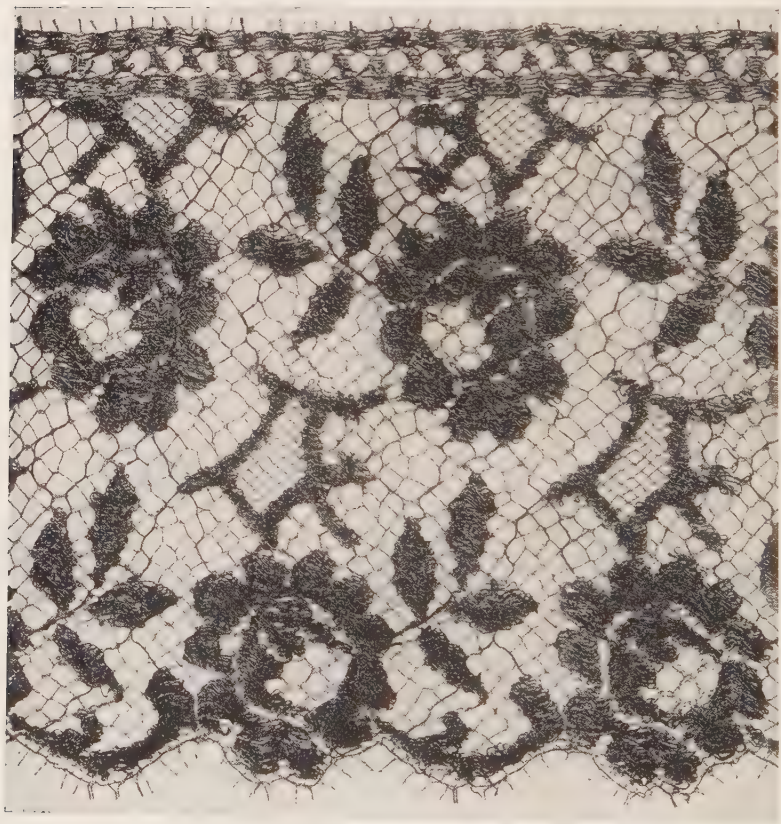
Machine-Made Mechlin

FIG. 22

It is 36 inches in width, is folded double, and is rolled on bolts. Unlike other fabrics, it does not require cutting on the bias. This is because of the manner of weaving and the fact that it stretches readily on the length of the material. It is generally used in this manner for making transparent hats, bindings, folds, and flanges.



Hand-Made Metal Lace



Machine-Made Metal Lace
FIG. 23

92. Maltese Lace.—The distinguishing feature of Maltese lace, Fig. 21, is the conventionalized pattern of the Maltese cross and dots, called *mosca*. This type of lace is made in rather open weave, and may be of thread or black or white silk.

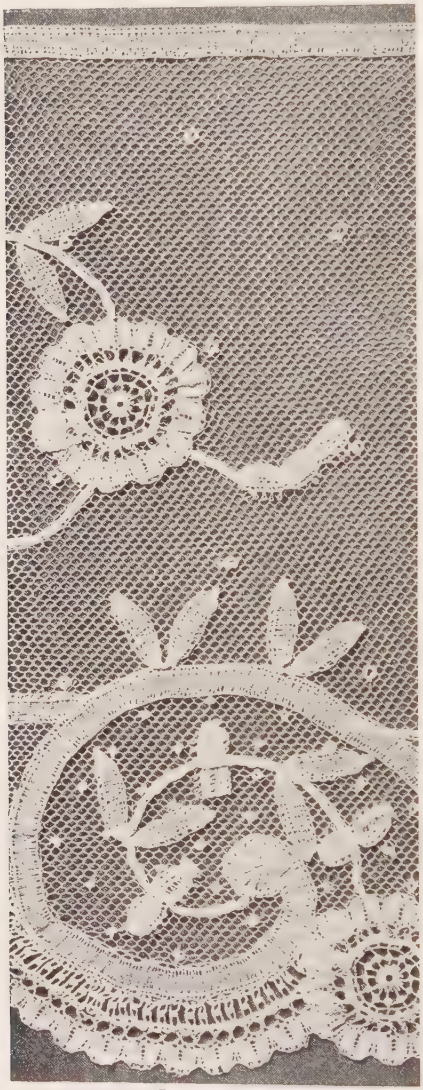
93. Mechlin Lace.—Next to Chantilly in popularity as a millinery lace, comes Mechlin, Fig. 22. The ground is a hexagonal

Hand-Made Point de Gaze
FIG. 24

mesh in which four sides of the holes consist of two threads twisted and the other two sides, four threads plaited. The pattern consists chiefly of flowers and buds outlined with a flat, silky thread. Mechlin is the most supple of all laces and has a light, filmy appearance.

94. Metal Lace.—Gold and silver threads are used in the developing of metal lace, Fig. 23. The hand-made variety is

easily distinguished because it is a guipure lace, while the manufactured kind has its patterns woven into a net ground.



Princess Lace
FIG. 25

In the millinery world, metal laces are used with very beautiful results.

95. Point de Gaze Lace. When point de Gaze lace, Fig. 24, is used in millinery, it furnishes motifs for appliqué. It is a very delicate, gauze-like lace somewhat similar to Alençon, but distinguished from it by the fact that the design is outlined with a thread instead of with button-hole-stitches.

96. Princess Lace.—Although princess lace, Fig. 25, is made in imitation of duchesse lace, it does not always resemble the latter closely because it has a net ground. It is, however, a very beautiful, delicate lace of hand-wrought appearance. The parts are made separately and applied by hand to the ground.

97. Ratiné Lace.—In Fig. 26 is an illustration of ratiné lace, a heavy, coarse lace that has loops similar to those on Turkish toweling. When Fashion indicates, it is used on sports hats.

98. Shadow Lace.—Illustrated in Fig. 27 is shadow lace, a light, soft, pliable lace of any indistinct, shadowy pattern. Although inexpensive, it is fine and filmy and makes effective drapes.

Ratiné Lace
Fig. 26

Shadow Lace
Fig. 27

99. Spanish Lace.—The term Spanish lace is generally applied to the machine-made, fiber-silk varieties made in imitation of old Spanish, real, silk lace. The ground is craquelé net and has floral designs and sprays woven into it. Spanish lace comes in allover patterns or as flouncings. A typical design is illustrated in Fig. 28.

100. Tulle.—Silk bobbinet comes from Tulle, France, and is known by the name of the town, also by the name *illusion*. In

Spanish Lace
FIG. 28

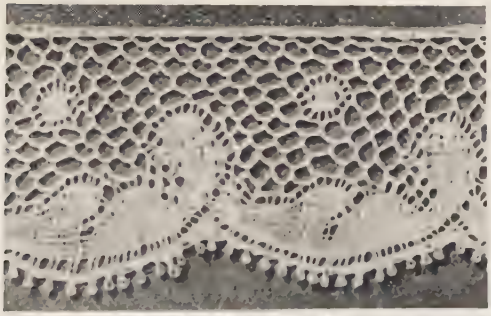
manner of weaving, it is the same as maline, except that it is sometimes dotted and sprigged. As veiling, or where an airy effect is desired, tulle is much used, but it is very frail and short-lived. The width of tulle is 72 inches.

101. Valenciennes Lace.—Laces that are popular, particularly for children's millinery, are illustrated in Fig. 29. Edgings can be matched in insertions, the same pattern often coming in several widths. Conventionalized flowers and occasional dots generally characterize the patterns.

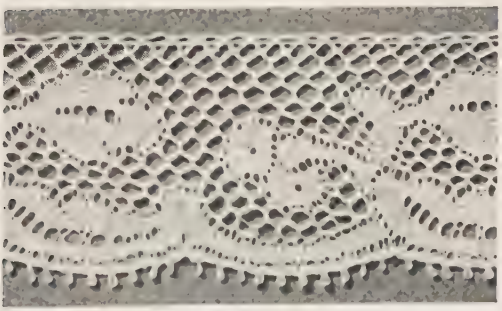
As is illustrated in the examples shown, French Val is very dainty and has a diamond-shaped mesh, while German Val can be distinguished by its round mesh and bolder designs.

Hand-Made French Val

Machine-Made French Val



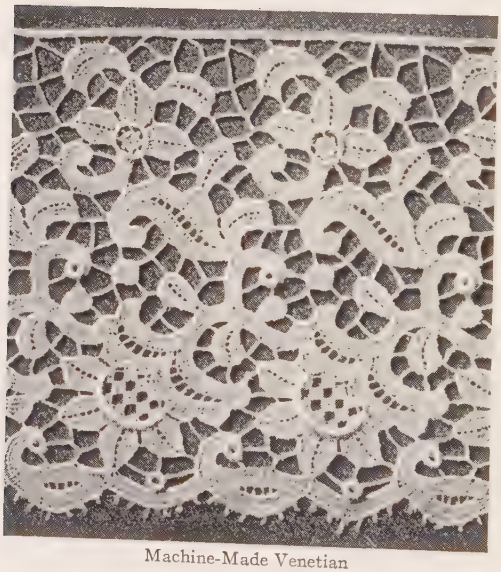
Hand-Made German Val



Machine Made German Val

FIG. 29

Hand-Made Venetian



Machine-Made Venetian

FIG. 30

102. Venetian Lace.—The real Venetian laces, which are known to have been made in Venice in the 16th century, are of the needle-point variety, the designs being joined generally by means of uneven bars.

Since small roses characterize the design of one variety and coral formations the design of another, the names *rose point* and *coraline point* have come to be applied to them. These two varieties are differentiated by another feature, the fact that the former variety has a raised, padded design, while the latter has a flat design; hence, the terms *raised point* and *flat point*.

By means of the Schiffli machine, old designs are reproduced in beautiful machine-made lace. Fig. 30 illustrates both hand- and machine-made Venetian lace.

CHAPTER IV

MANUFACTURED AND HAND-MADE FLOWERS

NEED OF APPROPRIATE HAT TRIMMING

1. Appropriateness.—After a becoming shape has been decided on and developed into a foundation hat, comes the problem of what the trimming shall be; for, although there are occasional hats on which trimming seems unnecessary, such hats are very few. In almost all cases, the trimming is as important as the foundation hat, often, in fact, the cause of much more forethought. And always the trimming must be chosen with one idea in view—to make the hat a perfect whole that will enhance the beauty of its wearer and furnish the necessary finish to a harmonious costume.

In order that both hat and wearer appear at their best together, all trimming must be to type. It must give the proper line to the hat, a touch of color if color is needed, a soft effect if softness is necessary, and be in keeping with the material of the hat and the purpose for which the hat is intended.

It is true that there are no firm and fast rules concerning trimmings, yet good taste and fashion tendencies are as essentially dictators as ever could be any, "Thou shalt" or "Thou shalt not." As knowledge is at the basis of good taste, the aim of this chapter is to give you a sufficient knowledge to help you develop your discriminating powers in the selection of trimmings.

2. Sizes.—The uses of all trims vary according to their size and nature. For example, some flowers are used singly while others are preferred in bunches, wreaths, or other group garnitures. In the case of large roses, asters, poppies, pansies, dogwood, and other flowers that have petals of considerable size, the petals can be separated and used to make crowns, brim facings, or entire flower hats.

When using flowers in millinery, you are not limited to the sizes provided by nature. Manufacturers, in order to increase the range of utility of popular flowers, put on the market many diminished and exaggerated sizes of artificial flowers.

3. Colors.—In artificial flowers for hat trimming, colors are as independent of nature as are the sizes. This is necessary in order not to duplicate trims. Consequently, because so many flowers come in a wide range of colors and sizes, it is not always the kind of flower or the combination of flowers that must be considered. More often, it is the combination of colors that proves the deciding factor in the choice of flower trimmings.

4. Making Home-Made Flower Trims.—In this chapter, directions are given for making some of the home-made trims that are occasionally made by persons who enjoy doing such work. Almost any natural flower can be duplicated in ribbon, chiffon, organdie, crêpe, and even in yarn or in leather. For economical reasons, if for no other, it is well to know how to make such flowers, for inexpensive trims may be made to match dress materials and little pieces of expensive materials can be utilized in many ingenious ways. Then, too, there is the satisfaction of making something beautiful out of almost nothing.

Such garnitures are not difficult to make, but require accuracy and patience, for a step in the process, mistaken or imperfectly taken, will be enough to spoil the effect desired. Yet, if the directions are followed closely, there is no reason why as perfect results cannot be secured as those in the samples illustrated. These examples are in alphabetical order for easy reference.

5. Manufactured Flowers.—Besides giving directions for making many flowers, this chapter presents a wide variety of manufactured flowers, together with their descriptions. Familiarity with these, in combination with the realization of their possibilities and an understanding of fitness and line, will help the observing woman to avoid the many mistakes that result from the lack of knowledge of trimmings and imperfect use of them. Trimmings may bring so much gratification to both wearer and observer that you should develop the ability to use them to the best advantage.

THE MAKING OF ARTIFICIAL FLOWERS

6. Origin of Artificial Flowers.—The early Egyptians, Greeks, and Romans, all great lovers of nature, missing flowers during the months when blossoms bloomed no more, reproduced them from bits of papyrus, from thin shavings of horn, and from pure silver and gold. However, the industry of making what we call at present artificial flowers, used as decorations on the head and wearing apparel, originated in China so many years ago that track of it is lost. The Chinese used cloth and the pitch of some trees, and finished the petals with a fine dust.

7. Growth of Industry.—Through commercial relations with the Chinese in trading centers, the Italians gradually learned some of their art of artificial flower making, and, by the eighteenth century, developed a trade that became better known than that of the Chinese. The flowers were made of cloth, feathers, and especially the walls of silk cocoons, and were stronger than the Chinese flowers.

The industry spread also into France, Germany, Belgium, Holland, Great Britain, and the United States. Its nature is such that it has given, and still gives, employment principally to women and children, many of whom work at home or in small shops. In France and Germany, the children gather at shops after school to make flowers for play-time occupation, and for their services they are paid almost nothing.

8. Materials.—As artificial flowers are now known, they appear in many materials, including velvet, silk, satin, linen, muslin, cambric, crêpe, maline, gauze, yarn, leather, rubber, clair de Lune composition, and small feathers. Silk and imported linen muslin are the ones most generally used.

Many people are under the impression that silk flowers are better than those made of cotton, but linen, or linen muslin, flowers wear longer, appear fresher, and imitate nature much more perfectly than those that are made of thin silk. The body of the linen is sufficiently heavy to hold the dressing, and the petals of the flower do not fray and become ragged as do those made of silk. Yet, for flowers that are not to be subjected to hard wear, silk ones are preferred by many in spite of their expense, because of the rich trimming which they make.

9. Processes of Manufacture.—The making of artificial flowers was originally done entirely by hand, and much of the work is still hand-done. Stamping machines and cutting dies, however, have been invented, and are in use where the industry has been modernized.

The materials used for artificial flowers are properly prepared by first being filled with a sizing, after which they are stretched on frames and permitted to dry. This enables the proper forms to be cut out by the use of metal dies, and the petals to be shaped by being pressed in wooden or metal molds. Frequently this pressing is done at the same time the flower is cut with the dies.

Improved stamp machines cut 16 or 20 layers of material in one die. These folds pass from worker to worker to be shaped, wired, goffered, also gummed, waxed, or dusted, as is desired. The folds are then fitted into petals, leaves, or buds, and stuffed with cotton in readiness to be put up in bunches and sewed in boxes for convenience in shipping.

The first flowers were very crude, but wonderful improvements have been made within the past few years, and now flowers can be imitated with such life-like and natural effect that one is almost tempted to search for their fragrance.

VARIETIES OF ARTIFICIAL FLOWERS

10. Apple Blossoms.—A flower that can be used to advantage for shop trimming as well as for hat trimming is the apple blossom. The petals, five of each blossom, are white with delicate pink tinting toward the center, some of the blossoms showing more pink than white. The blossoms are clustered on droopy sprays that lend graceful lines to any trim of which they are a feature. China silk and cambric are the materials out of which artificial apple blossoms are generally made. When used as hat trimming, the better grade of material is used.

11. Aster.—The sprays of asters, shown in Fig. 1, are in imitation of the cultivated *compound aster*, whose many petals produce a very full, somewhat ragged-looking flower. The materials used are cotton, silk, and velvet, and the sizes range from the very small to the giant size, one of which forms sufficient trimming for a hat.

Asters can be obtained in pure white, in solid colors, or in various mixtures. The colors are pink, red, blue, purple, orange, and tan of different grades of intensity, offering a wide range of colors when this flower is a popular trim.

FIG. 1

12. An exquisite *milliner-made aster* is shown in Fig. 2. Various kinds of ribbon, silk, or velvet may be utilized in making this flower, a combination of materials and colors being used, if desired. The width of the ribbon used depends, of course, on the size of the flower desired; however, Nos. 9, 16, or 22, or strips of material in these respective, widths are most satisfactory. In the flower shown in the illustration, 12 petals of No. 16 ribbon form the outer row, while No. 9 ribbon is gathered continuously in such a way as to form the inner petals and a shirred cord is used for the center.

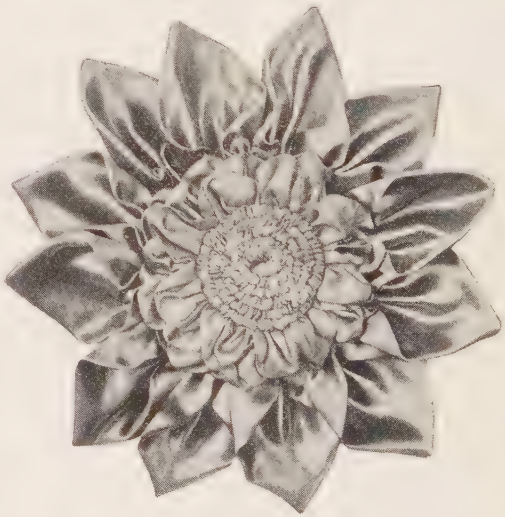


FIG. 2

13. To make this aster, first cut the ribbon or fabric, in this case ribbon, into separate pieces, one for each petal, making the length of each piece exactly twice the width, as shown in Fig. 3 (*a*). Lay the piece face downwards on the table and turn in the upper right-hand corner *a* so that the cut edge *ab* of the end of the ribbon will lie even with the selvage edge at the bottom and the corner *a* will be at the middle point of the bottom edge, as in (*b*). Turn the upper left-

hand corner *c* of the ribbon so that the cut end *cd* of the ribbon will lie even with the bottom selvage of the strip and the corner *c* will meet the corner *a*. Stick a pin through the corners to hold them in position and turn the piece over so that the selvage opening *e* is at the back. Fold over the left-hand point of the ribbon until the point is even with the bottom selvage and slightly passes the center of the petal, as in (*c*). Tack it in position with a stitch or two, as shown, so that it will not slip, and then fold over the right-hand point in exactly the same manner so that it passes the center

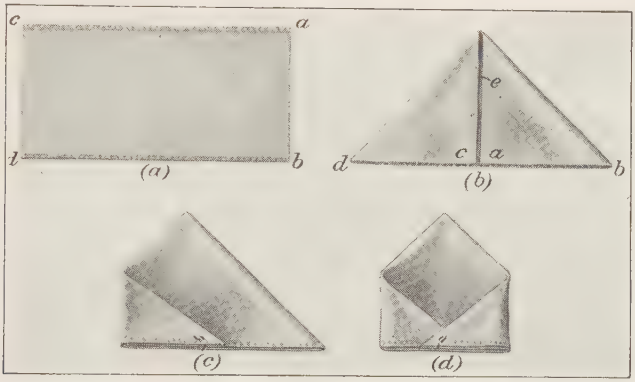


FIG. 3

of the petal, and tack this point to hold it in place, completing the petal, as shown in (*d*).

After you have made twelve petals as just described, run a gathering thread along their lower edges, carrying the thread from one petal to another instead of breaking it off between. After all the petals have been strung together in this manner, bring the thread around to form a circle 2 inches in diameter, and fasten it, distributing the fulness so that each petal will occupy the same amount of space.

Next, prepare a buckram cabochon, or netine-disc foundation, 2 inches in diameter, and sew the circle of petals around the edge.

14. For the inner petals, provide $1\frac{1}{2}$ yards of No. 9 ribbon, to be gathered as shown in Fig. 4, according to the method known by milliners as *purling ribbon*.

In order that the gathers may be even and similar, first mark guide lines, as shown. To do this, lay the ribbon on the ironing

board with the right side up. Pick up the right-hand end of the ribbon and draw it down so that the ribbon is folded in such a way that the top selvage edge lies squarely across the ribbon, in line with the grain of the silk. Press the fold with an iron, open it out and the ribbon will then show one bias crease. Pick up the same end of the ribbon again and draw it upwards, so as to make a second bias fold running in the opposite direction to the first crease and meeting the first crease at the edge of the ribbon. Press this fold with the iron, making the second crease. Then open up the ribbon, fold it over toward the bottom, so that the third crease pressed

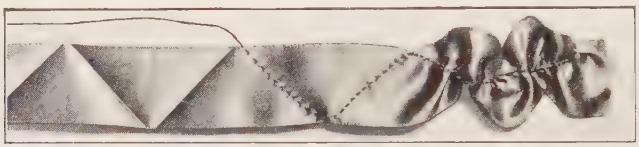


Fig. 4

in will be a bias crease parallel to the first crease made and meeting the second crease at the top. Open up the ribbon, turn the strip upwards, make the fourth crease, and continue in this manner until the entire piece of ribbon has been properly creased.

15. Start the gathering near one end and follow the line of creases. Draw the thread tight enough to draw the ribbon together, as shown, but take care not to have greater fulness at one place than at another.

With the ribbon thus prepared, fold it along the shirring so that the loops all extend in one direction. Following this plan, the loops that were at the bottom will be reversed, and each will show the reverse side of the ribbon. Draw the gathering thread just tight enough to make two rows of the ribbon around the cabochon. Sew the first row on the edge over the raw edges of the petals and the second row just inside.

16. To make the shirred cord required for the center of the aster, split $\frac{1}{2}$ yard of No. 9 ribbon in the middle and make a strip 1 yard long. Turn this strip over a No. 2 cable cord and gather the ribbon by pushing it along the cord until it is about $\frac{1}{2}$ yard long. Sew this shirred cord to the cabochon foundation along the inner edge of the zigzagged ribbon that forms the small petals, so as to cover and conceal the stitches by which these petals are fastened.

Then continue to sew the corded ribbon in a spiral, each row hiding the stitches of the outer row, until the center is reached. At this point, make a hole in the center of the cabochon foundation with the point of the scissors, and push the end of the cord through, making a neat finish at this point and completing the flower.

Fig. 5

17. Bachelor's Button.—A yarn flower that resembles somewhat the bachelor's button is illustrated in Fig. 5. To make this, provide a disc such as the one illustrated in Fig. 6, which may be either purchased in metal or made of cardboard. If you make the disc of cardboard, cut it $3\frac{3}{4}$ inches in diameter. The needle may be a punchwork needle, such as the one illustrated, or any large needle, preferably one with a blunt point.

18. To make a yarn bachelor's button, begin at the back of the disc by pushing the needle and yarn up through the center hole, leaving an end of 3 or 4 inches at the back. From the center, bring the

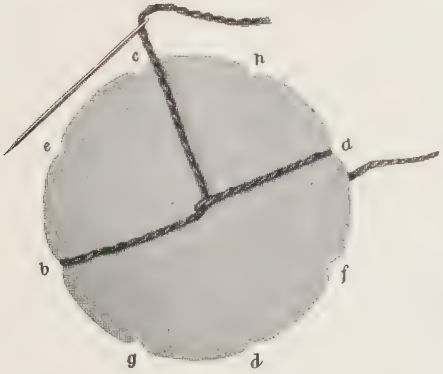


Fig. 6

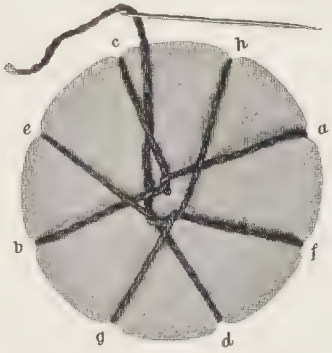


Fig. 7

yarn across the front to *a*, across the back to *b*, then across the front to the center, under the spoke *a* and up to *c*. Next, carry the yarn across the back to *d* and up to *e*, Fig. 7, holding the yarn in place at the center by means of the thumb at the front of the disc and the

forefinger at the back. Carry the yarn across the back to *f*, from *f* across the front to the center, where you hold it in place, together with the spoke from *d* to *e*, with your thumb, while you carry it to *g*, then across the back to *h*, and prepare to fasten the spokes. To make these spokes straight and firm, carry the thread to the center again, over the spokes at *a*, *f*, and *d*, under those at *g*, *b*, *e*, and *c*, and out between *c* and *h*, as in the illustration.

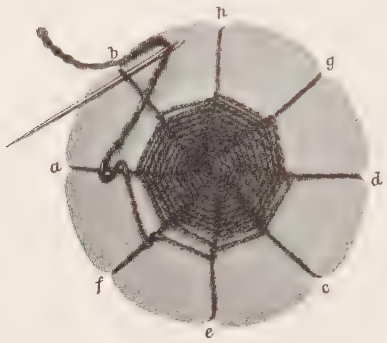


FIG. 8

19. After pulling the yarn tight, proceed to make outline-stitches over the spokes, starting with *h* and continuing to *a*, *f*, and so on around. Fig. 8 pictures the position of the needle and the manner in which these stitches are taken. Also, it gives you an idea as to the spider-web effect your flower will have when you are almost ready to remove it from the disc.

Continue outlining in the manner shown until you have covered about three-quarters of the disc; then secure the thread by running it back along a spoke or knotting it at the spoke where you stop. Next, remove the flower from the disc by cutting the strands at the center of the back. This process gives you 8 strands to be pulled together and used as a stem. Turn the flower inside out in order to bring the ribs into evidence; then knot the threads close to the base of the flower and leave the ends free, as Fig. 5 shows.

If you desire, make a French knot to designate the center of the bachelor's button. This knot should, of course, be in a contrasting color.

FIG. 9

20. Buttercup.—The artificial buttercup, shown in Fig. 9, is of a rich orange-yellow, a tone as near to nature's coloring as is possible and the only color in which buttercups are manufactured. The materials of which the flower is made range from cotton to velvet, the more expensive grades having the more perfect and intricate centers and being used in the higher-grade millinery.

As buttercups are very small and of one variety only, their utility is not so general as that of flowers of a larger family, but they make effective trims, especially when combined with other wild flowers and with grasses, and at times are very popular.

Fig. 10

21. Camillia.—A type of trimming that can be made of any kind of fabric and used on any type of hat is the artificial camillia. When made of dull fabric, as in the case of the camillia pictured in Fig. 10, it makes an appropriate trim for mourning hats. It is made up of five large petals, three of medium size, and three small ones, all cut from suède leather. This is one of the new kinds of flowers that is not affected or damaged by rain or dampness. For general wear, the petals are hand-painted to add to their beauty.

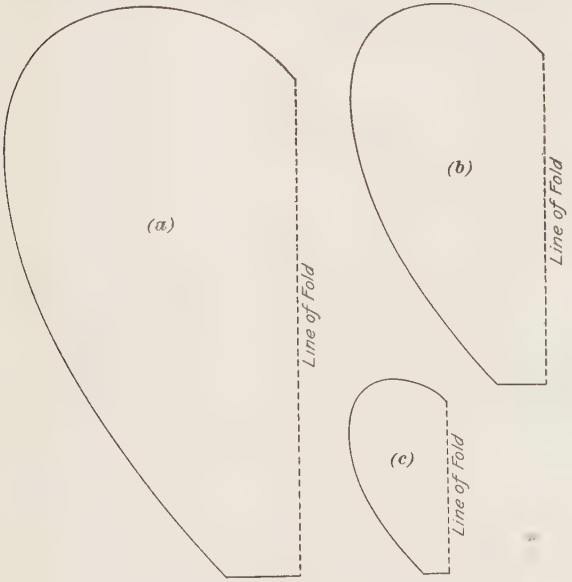


Fig. 11

22. Half patterns for the three sizes of petals are shown full size in Fig. 11 (*a*), (*b*), and (*c*). Trace these outlines on doubled pieces of tissue paper, cut them out on the traced lines, and unfold them. With the pattern from Fig. 11 (*a*), cut five large petals, and from each of the patterns (*b*)

and (*c*), cut three petals. On the backs of all but the three smallest petals, attach pieces of lace wire.

The center is stuffed with cotton wadding. From a piece of sheet wadding, cut five circular pieces each $1\frac{1}{2}$ inches in diameter, and lay them one on top of another. Draw the cut edges down and under, work the wadding into a firm ball, and loop thread around it to hold it in its rounded form. Take a piece of lace wire, lay its middle point on top of the ball of wadding, draw the ends down around and under the ball, and twist them together tightly. Over the ball stretch a circle of leather, which you have shirred around the edge, draw up the gathering thread, and fasten it securely.

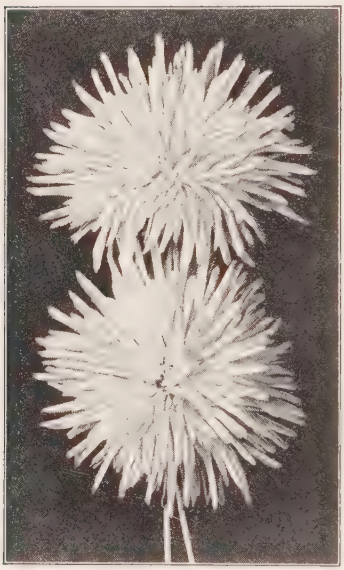


Fig. 12

Pick up the five largest petals and group them so that the edge of one petal slightly overlaps the next. Place the three medium-sized petals inside the five large ones, and the three smallest petals at the center. Push the ball down in the center of the flower, grasp all the wires firmly in the hand, adjust each petal properly, and wrap the wires together quite close to the bottom of each petal.

23. Chrysanthemum.—In Fig. 12 are illustrated pure white chrysanthemums, but these flowers are manufactured also in many colors; yellow, rust, pink, rose, red, blue, purple, besides the unusual seasonal tones and many intermixtures. The sizes vary from the very small pompons to those 6 inches or more in diameter. The materials used are soft, producing a light, fluffy effect, as chrysanthemums lose in beauty when they appear heavy or solid. A rolled effect, as shown, is generally given to the numberless petals of this compound flower.

24. Exceedingly smart not only as a hat trimming but also as the finishing touch on frocks and collars for wraps, is the *milliner-made chrysanthemum* in Fig. 13, which is made from crêpe satin.

The petals are cut on the bias, sewed into tubular folds, and these folds are applied to a cabochon foundation or netine disc. The size of the folds depends on the size of the flower desired. The dimensions that follow are for a medium-sized flower.

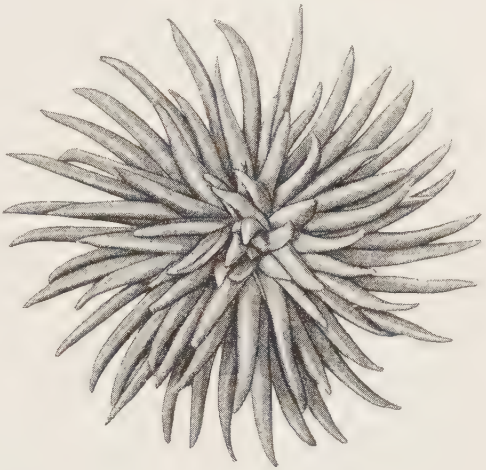


Fig. 13

25. To reproduce this chrysanthemum, cut several bias strips of satin $1\frac{1}{2}$ inches wide. Cut 32 strips 5 inches long for the first, or outside, row; 22 strips 3 inches long for the second row; 12 strips 2 inches long for the third row; 9 strips $1\frac{1}{2}$ inches long for the fourth row; and 6 shorter strips to fill in the flower center.

Machine-stitch these petals so that they taper to a point, as in (*a*), Fig. 14. Trim the edges, but do not cut off the thread at the tapered end. Instead, leave plenty of thread so that you can

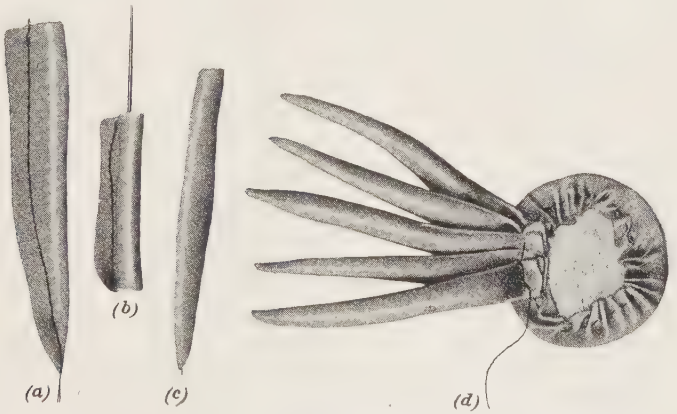


Fig. 14

thread a needle with it. To turn the petal right side out, put the needle in the tip, push it through the tube, drawing the tip after it, as shown in (*b*), and continue until the petal appears as in (*c*).

Next, cover a 2-inch cabochon or netine disc with a circle of satin and apply the 5-inch petals around the edge, as illustrated in (*d*). Graduate the sizes in to the center, and finish by folding one of the small petals over the ends and stitching in the direct center.

26. Clover.—In Fig. 15 is an illustration of clover, an artificial flower that comes mostly in the natural coloring; that is, in white and and various pink, purple, and crimson tones, the darker tones always being at the tips of the petals. The leaves are stamped or tinted in two or more tones of green in order to imitate the design and coloring of the real clover leaf.

FIG. 15

FIG. 16

Clover has a tufted, globular appearance and makes an excellent flower to combine with other wild flowers or grasses. It comes in cotton, silk, and velvet.

27. Cornflower.—As the cornflower, shown in Fig. 16, is copied from the common field flower of this name, it usually comes in a bright indigo color with a tinge of pink near the center of the flower. It has a fluffy appearance, and is particularly artistic if intermingled with grass, foliage, wheat, field daisies, wild roses, and other wild flowers. It also is very effective if used alone when a bright, all-blue trimming is desired.

The cornflowers illustrated are of a large size, but there are various other sizes, the smallest being a very tiny, tufted flower

sometimes called the *bluet*, but not resembling the natural bluet. Variations of the cornflower are sold also under the name of *bachelor's buttons*.

FIG. 17

28. Cosmos.—The cosmos, shown in Fig. 17, is an artificial flower manufactured in many colors. It has a feathery center that gives the flower a light, airy effect. The petals differ somewhat from the natural flower, being considerably broader.

Cosmos makes a very desirable hat trimming if care is taken as to the manner of its use. Used alone, either in a single color or in harmonizing colors, cosmos is generally sufficient trimming on a hat, for there are few other flowers that, when combined with it, do not detract from its beauty.

FIG. 18

29. Cowslip.—The cowslip, shown in Fig. 18, is a small, yellow, cup-shaped artificial flower with a soft stem. Clusters of cowslips may be bunched together in various ways and used independent of other flowers, or they may be used in combination with other wild flowers, as in the case of the buttercup. These two flowers have a general similarity, but the cowslip is more dainty in both coloring and outline.

FIG. 19

30. Dahlia.—The dahlia, Fig. 19, a rather prim artificial flower, is in imitation of a member of the aster family, but its curves

are more regular than those of the aster and its petals are fleshy and almost stiff. However, so far as color is concerned, dahlias are very rich and full of life. They come in the yellow, orange,

FIG. 20

rose, purplish red, blue, and crimson tones that are so warm, and in many variegated ray effects.

As the dahlia can be clipped from the stem and sewed flat to the hat, it is well adapted for making flower toques or turbans. Also, the petals can be separated and used for making all-flower hats.

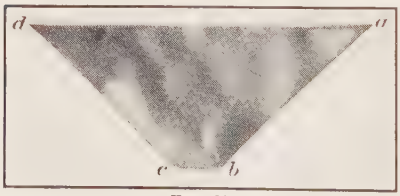


FIG. 21

31. The *ribbon dahlia* shown in Fig. 20, which is combined with mignonette and foliage, requires 3 yards of No. 5 ribbon. From this are cut fifty-four pieces of the shape shown in Fig. 21. Cut each piece so that it measures 3 inches on the long selvage edge and $\frac{1}{2}$ inch on the opposite edge, with the ends cut on the bias in opposite direc-

tions, and the middle of the short edge directly opposite the middle of the long edge.

To avoid waste, cut the pieces from the ribbon as illustrated in Fig. 22. The triangular piece *a* is wasted, but after it is cut away, each $3\frac{1}{2}$ inches

FIG. 22

FIG. 23

of ribbon is sufficient for two pieces of the required size and shape. This method of cutting ribbon is used for making many millinery ornaments.

32. To form each petal, gather one of the pieces of ribbon, beginning at the upper right-hand corner *a*, Fig. 21, continuing down the bias to *b*, then across the $\frac{1}{2}$-inch space at the bottom to *c*, and up the bias at the left side to *d*, finishing at the upper left-hand corner. Draw the thread rather tightly, so as to cup the ribbon. Then pull the left-hand side in, place the right-hand side over it, and sew the petal at the bottom, when it will have the form shown in Fig. 23.

33. For the center, cut from netine or buckram a cabochon $1\frac{1}{2}$ inches in diameter and cover it with a small piece of silk. Sew a row of twenty petals to the bottom of the cabochon, spacing them evenly around it. Attach a second row of eighteen petals $\frac{1}{4}$ inch above the first row, and a third row of sixteen petals $\frac{1}{4}$ inch above the second row. After the petals have been attached to the cabochon, fill in the center with chain-stitches, using a darning needle and heavy rope silk.

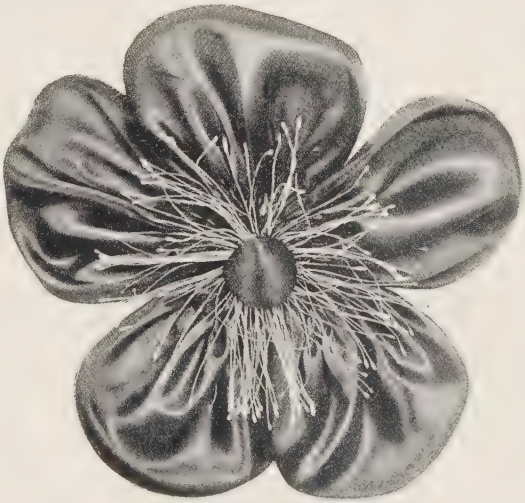


FIG. 24

The flower is now ready to be surrounded with artificial mignonette and foliage, as shown, or used in some other way that is preferred.

34. On account of its very large size, the *giant single-petal dahlia* shown in Fig. 24 should be made of light-weight taffeta, charmeuse, messaline, or some other thin silk or satin.

First, cut a bias strip of satin, making it 9 inches wide on the selvage. Then cut off a piece of narrow ribbon wire $13\frac{1}{2}$ inches

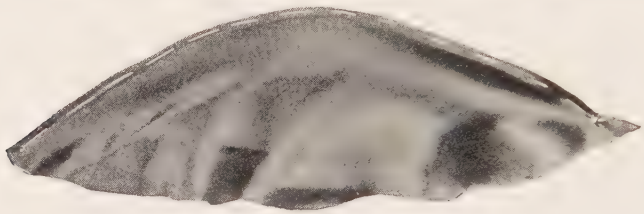


Fig. 25

long, and baste it fast to one cut edge and one selvage edge of the bias strip, beginning at the point, as shown in Fig. 25. Stretch the satin tightly while the ribbon wire is being attached, so that the wire will be bowed, as shown in the illustration. When the basting is finished, cut the satin to the shape of a leaf, as shown, and keep the remaining piece of material to make another petal.

35. Curve the ribbon wire as shown in Fig. 26 and roll it under the edge of the satin, giving it two full turns, thus completely hiding the stitches. Next, put in three rows of shirring $\frac{1}{2}$ inch apart, as shown in Fig. 27, beginning the first row *a* at a point 2 inches from the end *b* of the ribbon wire and running it straight across. Bring the ends of the wire together, and draw up the shirring threads, as shown in Fig. 28; then fasten them so that they cannot come loose, thus completing one petal. Make the other four petals in exactly the same manner.

Fig. 26

For the center, cut from satin a circle $2\frac{1}{2}$ inches in diameter and shirr it around the outer edge. Make a ball by rolling up five circles of wadding, each $2\frac{1}{2}$ inches

in diameter, and sew this to a piece of brace wire 4 inches long. Over the wadded ball draw the circle of satin tightly, and sew it fast at the back.

36. The next step is to sew the stamens fast at the back of the ball that forms the center of the flower. Arrange them as shown in Fig. 29, spreading them out in every direction from the center.

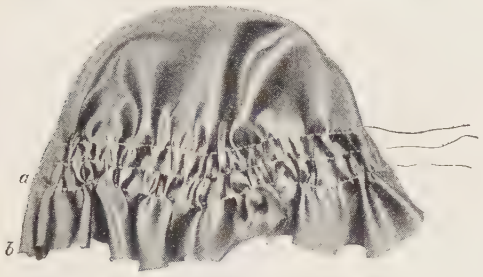


Fig. 27

Fig. 28

After this center has been prepared, cluster the five petals together, the edge of one petal slightly overlapping the one next to it, push the central ball and the stamens through the opening, and sew the petals together at the back of the ball. Leave just enough wire at the bottom to attach the ornament to the hat.

If a double row of petals is desired, reduce them in size and apply one over the other.

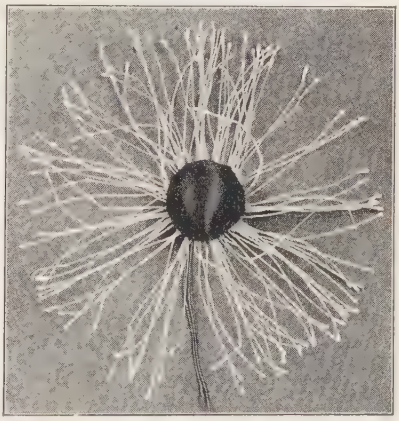


Fig. 29

37. Daisies.—*Field daisies*, or *marguerites*, shown in Fig. 30, form a very popular trim for hats of many kinds. They come in various sizes from the smallest, such as are found in fields, to the large, broad-petaled, cultivated kind with prominent yellow centers.

Daisies come in several grades and materials. The heaviest qualities, such as velvet, plush, and felt, can be used on winter hats, while those of muslin are appropriate for summer, as daisies really never go out of season or style.

38. The *brown-eyed Susan*, shown in Fig. 31, is very similar to the field daisy, except that in its natural state it has orange-yellow petals and a very dark purplish brown center. Also, it is not manufactured in such small sizes as is the white daisy.

FIG. 30

As in the case of field daisies, brown - eyed Susans can be used alone or in combination with other flowers, but greater discrimination is needed in making a selection of flowers since there are fewer that look well with brown-eyed Susans.

39. Daisies made from ribbon and chenille are exceedingly effective, yet very simple to make. Three varieties of this type follow.

The *baby-ribbon daisy*, shown in Fig. 32, is made of satin baby-ribbon petals fastened at the center of a cabochon foundation ornamented with French knots, the whole being attached to daisy foliage. For making this daisy, use No. 1 ribbon, commonly called baby ribbon, and a foundation of buckram the size of a fifty-cent piece, or smaller, if desired.

FIG. 31

40. Cut $4\frac{1}{2}$ yards of ribbon into thirty-six pieces, each $4\frac{1}{2}$ inches long. Tie a knot in each piece of ribbon, directly at the center, and draw the knot tight, so that the piece appears as in Fig. 33. Then lay the ends one on top of the other, as in Fig. 34, taking care to have the right side of each half of the piece facing upwards. Sew the first petal fast to the cabochon foundation by stitching through the two overlapped ends. Put on the next petal close to the first, in the same way, and so continue until a row of petals has been

Fig. 32

Fig. 33

Fig. 34

sewed on all around the edge of the cabochon. Then, sew a second row directly on top of the first row. Each row, of course, should contain 18 petals, or half the total number used.

Use yellow rope silk to make the center of the daisy. Thread the rope silk into a darning needle or an embroidery needle, and

Fig. 35

fill the center with a number of French knots, as shown in Fig. 32, covering and hiding the ends of the petals. Sew a piece of brace wire across the back of the cabochon center of the flower, and over the wire slip a piece of green rubber tube to form the stem. Fasten the flower to a cluster of leaves, preferably daisy leaves, and the ornament is complete.

41. The same instruction that applies to the daisy in Fig. 32 applies also to the *velvet-ribbon daisy* shown in Fig. 35, except that the petals of this flower are made of No. 1 velvet ribbon. Thirty-two petals, each requiring a piece of ribbon 3 inches long, or $2\frac{2}{3}$ yards of ribbon in all, are used for making the velvet-petal daisy. The cabochon center is 1 inch in diameter.

Fig. 36

42. The *satin-ribbon daisy*, illustrated in Fig. 36, can be made in practically the same way as the previous ones. The difference is that the petals are not knotted and the center is soft and padded. Still another variation can be made by using fewer loops of ribbon but of greater width, and using stamens for the center.

If you have acquired considerable skill in the making of flowers, you may save time by looping the petals of daisies without cutting each loop; but for the inexperienced person, the safer plan is to follow all the directions given.

FIG. 37

43. Dandelion. For flower - trimmed hats, dandelions, shown in Fig. 37, are sometimes used; but on account of the vividness of the natural color, they are generally toned down by being mixed with grasses or foliage. Dandelions are most effective when combined with other field flowers. They are rarely used alone unless during a season when their orange-yellow is a fashionable color in millinery styles.

44. Dogwood.—All-white velvet dogwood with black stamens and black stem, as shown in Fig. 38, is a flower that can be used in either winter or summer. Combining dogwood with black foliage makes an effective black-and-white trim, but if a more colorful effect is desired, it may be obtained by mingling dogwood with rich velvet of a warm color, such as red, or with dark green or various shades of purple.

Dogwood petals are excellent for making all-white petal hats.

FIG. 38

45. Forget-Me-Nots.—The forget-me-nots, shown in Fig. 39, are of velvet, but less expensive forget-me-nots are manufactured of cambric. Both kinds come in

blue, violet-blue, and pink, with centers of yellow, the colors most favored where delicate effects are desired. Besides their delicacy of coloring, their diminutive size is a factor that gives daintiness to the trim in which forget-me-nots are used.

46. Fuchsia.—The fuchsia, snown in Fig. 40, is a very rich-looking flower. On account of the skill needed in reproducing the natural fuchsia tones, these flowers are manufactured only in the more expensive velvet varieties.

FIG. 39

FIG. 40

If it were not for the centers of these flowers, they might have a somewhat heavy appearance, but the fine stamens lend an air of delicacy.

47. Gardenia.—The gardenia, shown in Fig. 41, is cream-white in imitation of the natural flower, but some man-made gardenias are delicately tinted with pastel tones. The gardenia is used as much in the winter as it is in the summer. It is practically always sewed down firmly to the hat, almost as though it were appliquéd, as in the case of the dahlia. Its petals also may be separated and utilized for all-flower hats.

48. Heather.—Of late, millinery manufacturers have produced a flower trim in imitation of Scotch heather. The foliage

is fine and feathery, as Fig. 42 shows, and the ends of the feathery flues are tipped with little white dots that resemble hardened sap. At intervals, from the stems and flues, tiny bell-shaped flowers droop. In the artificial heather, these may be of various colors.

Fig. 41

Nothing makes a lacier foliage and daintier flower for combining with roses, forget-me-nots, bluets, and many other flowers than heather.

49. Hydrangea.—A blossom of delicate coloring, having a light, soft effect, is the artificial hydrangea. Its many small blossoms are in clusters and come in white, pink, and blue. The clusters can be separated for use on hats, but for the trimming of a millinery shop they can be utilized just as they are.

50. Laurel.—Sometimes artificial laurel is used in the trimming of hats. The bowl-shaped blossoms are in clusters and are a delicate pink in color. Inside, the slender, white stamens resemble the spokes of a wheel. The buds, of which there are always several in each cluster, are a deep pink, giving character to the cluster.

Fig. 42

Laurel is another flower that can be utilized effectively for millinery-shop adornment. In this capacity the laurel blossoms are especially pleasing when used in combination with long, slender grasses.

51. Lilac.—The lilac, shown in Fig. 43, is one of the most adaptable and useful of all the artificial flowers to be found on the market. Some lilacs follow the coloring of nature, coming in lavender, pinkish lavender, light purple-red, and white, but other colors, also, are employed, even the browns and tans. There are several grades of lilacs, according to the materials out of which they are made, the velvet being the best.

The daintiness of these flowers, the delicacy of their color, and the graceful droop of the clusters make a lovely hat trim. Also, in lilac time, these flowers can be made to add charm to the millinery shop because they are so decorative.

FIG. 43

52. Lilies.—Of the varieties of lilies used on hats, one is in imitation of the *calla lily*, having a large, white cup-shaped spathe with yellow, fleshy spadix within and partly hidden. These flowers are seldom made in any materials except the more substantial and expensive, as the demand for them is not sufficiently great to warrant their production in larger numbers and cheaper grades.

FIG. 44

In the case of the calla lily, shown in Fig. 44, the flower is made of white velvet, the stamen of bright-yellow velvet, and the leaves and stem of grass-green velvet. Or, in order to keep the flower light in weight, the lily may be lined with white Georgette crêpe, and the leaves with green crêpe; also, the crêpe may be used for winding the stems.

53. The pattern for the flower may be made from the diagram *a*, Fig. 45. Fold a sheet of tissue paper or other transparent paper, lay the folded edge exactly even with the line *bc* of the diagram, and trace the outline *bdec* on the paper. Cut through both thicknesses of paper, following this outline; then unfold the piece thus cut out, and you will find it to be approximately heart-shaped. Pin this paper pattern to a piece of white velvet, and cut the velvet to the shape of the pattern.

Hem both curved edges of the velvet, indicated by *dec* on the diagram, with a French, or rolled, hem, push a piece of lace wire, 16 inches long, inside the hem, and bend the wire so as to form a point at the tip of the flower. Let the ends of the wire project at the bottom of the flower.

54. The pattern for the stamen may be made from the diagram *f*, Fig. 45. Fold a piece of tissue paper, lay its folded edge even with the line *gh*, trace the outline *gijh* on the paper, cut both thicknesses along this outline, and unfold the piece thus cut out. Pin this unfolded pattern to a piece of bright-yellow velvet, and cut the velvet to the pattern.

Fold this piece of velvet lengthwise in the middle, right side in, and sew the two edges together, but leave the straight end open. Then turn the velvet right side out, through the opening at the bottom. Double in the middle a piece of brace wire about 8 inches long, wrap it with wadding, cover the doubled end with wadding, and sew the wadding fast to the wire. Push this covered wire up tightly inside the velvet stamen, draw the bottom of the velvet around the wire, wrap the two together with thread, and then sew the thread fast.

Lay this finished stamen inside the white flower, with the seam of the stamen facing the inside of the flower. Push on the wires that are inside the hemmed edge of the flower, so as to cause the lily to take its shape, draw the wires together at the bottom, lap the edges over the stamen, and wrap the whole securely with thread to hold the parts in place.

55. The pattern for the leaves should be made from the diagram *k*, Fig. 45. Fold a piece of tissue paper, lay its folded edge even with the line *lm*, trace the outline *lnom* on the paper, and cut both thicknesses of paper to this outline. Unfold the paper thus cut out, which will be heart-shaped, and from it cut six pieces of

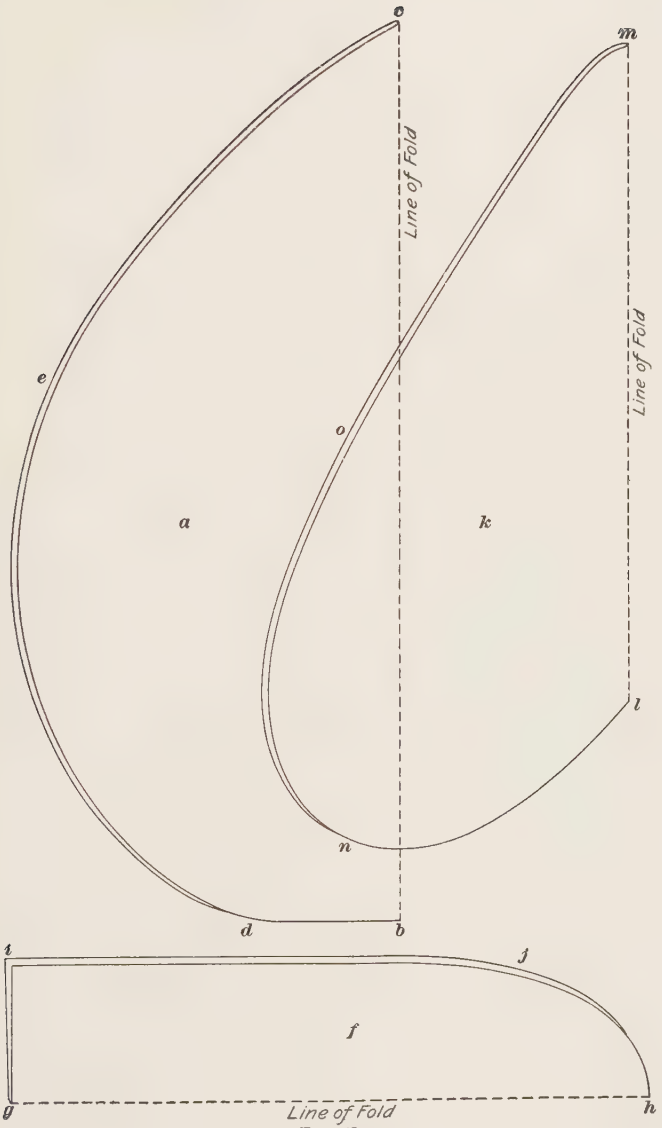


FIG. 45

grass-green velvet. Each of the three leaves is made by sewing together two of these pieces and inserting wire for stiffening.

Lay two pieces together, face to face, and sew around the outer edge of the leaf with either back-stitches or the sewing machine, but leave a small opening at the bottom of the leaf. Turn the leaf right side out through this opening, and make two rows of stitching $\frac{1}{4}$ inch apart along the middle of the leaf. Push a doubled piece of brace wire between the two rows of stitching, and sew the leaf to the wire at the bottom.

FIG. 36

Another method of stiffening the leaf is to omit the two rows of stitching along the middle and to hold the velvet in shape by a wire loop. Double a piece of lace wire, push it inside the leaf through the opening at the bottom, and continue to push on the ends until the wires spread apart and fit the curve of the edge of the leaf; then sew the bottom of the leaf to the wires.

56. Wrap the wire stem of each leaf with a narrow bias strip of green velvet for a length of 2 inches and then sew it to the wire and cut it off. Lay the stems of the leaves against the stem of the lily at intervals of about $\frac{1}{2}$ inch and wrap them fast to the stem of the lily. Then, with a bias strip of green velvet, wrap the wires from the bottom of the flower to the lower end of the central stem. The bias strips used for covering the stem of the lily and the stems of the leaves must be sewed firmly to the wires to prevent them from unwrapping.

57. Not very often are *pond lilies* employed as hat trimming, yet when rightly used, they add much to the beauty of the hat that they adorn. The giant size is used alone, while somewhat smaller ones are used in sprays combined with foliage.

Generally water lilies come in white with touches of pink toward the center of the inside of the petals. Sometimes, however,

artificial lilies are made in imitation of the yellow pond-lily variety, and at times, when Fashion so decrees, manufacturers produce very lovely water liles in all colors. Velvet and a combination of silk and linen or silk and muslin are the materials out of which lilies are made. Fig. 46 illustrates the muslin and silk variety commonly seen in the shops.

The lily shown in Fig. 47 is a velvet lily that has been treated to a wax bath. When Fashion decrees the waxed form of floral trim, all the different kinds of flowers are treated to the wax bath.

Fig. 47

58. The *valley lily*, or *lily of the valley*, shown in Fig. 48, is an appropriate flower where daintiness is desired. Its pure-white, bell-shaped flowers droop from one side of the stem just as they do in nature. These flowers are dyed in all colors and may be used alone or in wreaths and other garnitures in which different flowers are combined.

Fig. 48

Valley lilies come in different grades of cotton, silk, and velvet.

59. Marigold.—One of the most colorful of artificial flowers is the marigold, as it comes in such rich tones as golden-yellow, orange, rust, and red, also in other colors not true to nature.

The marigold belongs to the aster family, but in appearance resembles the daisy, as the petals are flat and regular. There are, however, two or three layers of petals around the center, so the marigold has a more solid appearance.

60. Mimosa.—The artificial mimosa, illustrated in Fig. 49, is especially good for combining with other flowers, as it gives a light, almost fluffy appearance to any trim in which it is used.

The flowers are very tiny, the most conspicuous feature of the sprays being the fuzzy balls that radiate from the stem at intervals in groups of fives.

Mimosa makes a very colorful trim, as the fuzzy balls and tiny flowers are manufactured in the same color, and as the leaves are so small and narrow as not to show prominently. Mimosa comes in natural light yellow tones and in whatever colors are seasonal.

61. Morning Glory.—The morning glory is a flower that offers a variety of possibilities for both hat and shop trimming. Fig. 50

FIG. 49

FIG. 50

shows *manufactured morning glories* of exaggerated size made out of blue velvet with leaves of the same material and color and stems wound with silk yarn. Both flowers and leaves are tinted with green, and the centers of the flowers are of fine, glossy blue visca over moulds, with red-purple stamens.

Such flowers come in many sizes and colors not found in nature, but they prove as artistic as the accurate copies from nature. The smallest sizes of these flowers are called *baby morning glories*. They are smaller than a dime and come in the daintiest of coloring.

Morning glories are manufactured in various grades according to the material and size, but the inexpensive grades, or small sizes, do not have elaborate centers.

62. To make the *yarn morning glory* illustrated in Fig. 51, you will need a metal or cardboard disc, $3\frac{3}{4}$ inches in diameter, such as is described in Art. **17.** First, pass the yarn through the hole in the center, leaving at the back of the disc a loose end about 3 inches long, as shown in Fig. 52. Holding the loose end at the back with the forefinger of the left hand, start from the hole at the center of the front of the disc and pass the yarn across the disc to *a*, along the under edge of the back to *b*, as in Fig. 52, across the front to *c*, along the under edge to *d*, holding the yarn at the center with the thumb. Next, take the yarn to the center and to *e*, along the under edge to *f*, across the front to *g*, and along the under edge to *h*, Fig. 52. Then, carry the needle and yarn to the center, and pass them over the spokes *g*, *d*, and *c* and under those at *e*, *f*, *a*, and *b*. Then draw up the yarn to tighten the spokes at the center. Fig. 53 shows the yarn carried over and under the spokes preparatory to drawing the yarn tight.

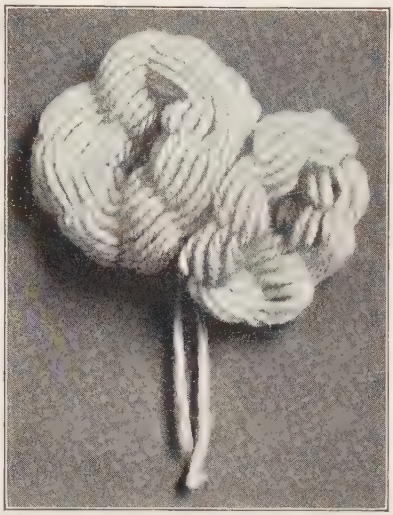


FIG. 51

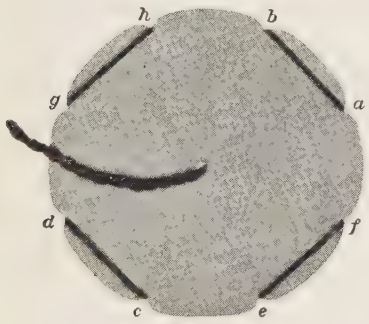


FIG. 52

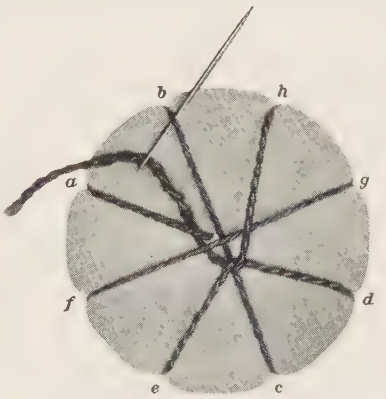


FIG. 53

63. The next process, after drawing the yarn firm around the center, is to make the stitches that form the body of the flower.

Fig. 8, which illustrates the making of yarn bachelor's button, shows how to bring the needle and thread over, around, and under a spoke in a simple outline-stitch. According to Fig. 53, the first spoke around which to draw the thread is the one at *h*. Continue around as in Fig. 8, but drawing the thread tight after each stitch so as to make a firm flower.

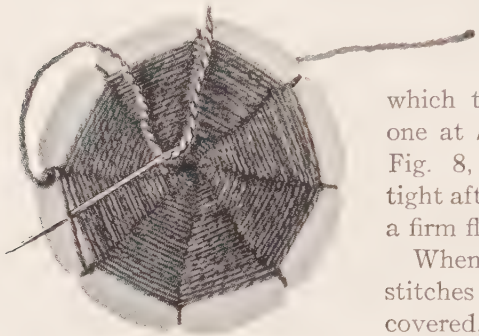


Fig. 54

When you have continued the stitches until the disc is practically covered, as in Fig. 54, slip the needle into the last spoke and knot or sew secure the thread that you have just been using. Then, pull the yarn gently along the veins in the direction of the edge, as this will give the soft roll and cup shape to the flower, and slip the loops off the disc. The thread with which you started at the back of the disc, may be used for the stem, unless you make a heavier or a wire stem and attach the flower to it.

64. For a variation of this morning glory, follow exactly the same process, but use chenille instead of yarn. This makes a silkier, richer-looking, novelty flower.

65. Nasturtium.—A flower that offers an abundance of bright coloring is the nasturtium. The colors range from a light yellow through the tones of orange into a red so somber that it is nearly black. These flowers can be used on hats in various combinations, and because of their color possibilities, they make attractive millinery-shop decorations in season.

Fig. 55

Hardly a flower is more skilfully imitated than the nasturtium, not only in coloring, but in contour. As Fig. 55 shows, the petals

are a little jagged at the outer edge and these, as well as the leaves, clearly show the veining characteristic of nasturtiums.

66. Orange Blossoms.—The orange blossom, *syringa*, or *mock orange*, shown in Fig. 56, is made of cream-white sheet wax. As the flowers are rather heavy, they should be mixed with delicate foliage, fern leaves, or light, airy flowers, but when used on bridal veils, they are used alone, for the tulle supplies sufficient airiness.

FIG. 56

As hat trims, orange blossoms are sometimes made into cocardes and cabochons, and are used in combination with other flowers and with fruits, such as apples or currants.

FIG. 57

67. Orchid.—In Fig. 57 is illustrated the orchid, a large aristocratic flower generally made of velvet. It is expensive because, in order to imitate the exquisite coloring and texture that nature has given to the orchid, velvet skilfully hand-tinted is required.

Orchids come in all colors that the dyers produce, but are most often in the natural pastel coloring. Because of their irregular petals, they require very little foliage.

68. Pansy.—In Fig. 58 are shown *velvet pansies*. The cheaper grades are made of combinations of velvet and silk or satin. No flower is any richer than the pansy and no flower exhibits more lovely coloring or gives more life to a hat. The yellows, blues, purples, deep reds, and browns of nature all are cleverly reproduced in the arti-

ficial flower and so real are the imitations, that even the "pansy faces" seem to look out of the flowers.

When pansies are popular, they are manufactured in several sizes from the very small to giant ones 2 inches or more in diameter. The various sizes are used in every conceivable manner from trims in bunches or designs to coverings for brim facings, entire crowns, or even entire hats.

69. To make *wool crocheted pansies*, such as shown in Fig. 59, proceed in the following way: Chain 4 stitches and join in a ring; chain 2 stitches and double-crochet 7 stitches into the ring as a

FIG. 58

FIG. 59

center; chain 2, then attach to the ring with 1 slip-stitch. For the second petal, chain 2 stitches, double-crochet 5 stitches into the ring, and slip-stitch to the center with 1 stitch. Make the third petal in the same way as the second.

Next, chain 7 stitches and turn so that you can slip-stitch 1 stitch to the back of the slip-stitch between the first and second petals, thus leaving an opening. Make 1 single-crochet stitch, 5 double-crochet stitches, chain 2, and attach to the opening with 1 single crochet-stitch. This makes the fourth petal. For the fifth, repeat the 5 double-crochet stitches; the 2 chain-stitches, and the 1 single crochet-stitch that completes the petal; then fasten the yarn.

An attractive color scheme for this pansy is to make the first three petals of the one color and the two remaining petals, which form the upper part of the pansy, of another color.

70. For the leaves, first chain 4 stitches, and join; then make 8 single crochet-stitches in the ring. Chain 5 stitches, make 1 slip-stitch into the first chain-stitch, and single crochet 9 stitches into the second ring. Now break off, leaving an end of the wool long enough to be wound around the wire that serves as a stem.

To give the finishing touches to the pansies, put in the "pansy faces" by means of a few darning-stitches and a French knot. These should be in a contrasting color, as shown.

FIG. 60

71. Petunia.—One of the common garden flowers that is sometimes imitated for millinery purposes is the petunia. It is a funnel-shaped, five-lobed flower growing in several sizes and in tones of pink, purple, and red, also in pure white. Artificial petunias, however, are made in more sizes and colors. Especially lovely are the variegated ones, the deeper tones of which are on the outer edge of the flower, the more delicate rays toward the center.

Petunias also may be made at home simply and quickly.

72. The *petunia spray*, shown in Fig. 60 (*a*), requires $\frac{7}{8}$ yard of No. 16 ribbon, each flower being made of a circle of ribbon $1\frac{7}{8}$ inches in diameter. Or, $\frac{1}{2}$ yard of No. 60 ribbon, which is twice as wide as the No. 16, might be used if two circles were cut out side by side. The petunias may be made of taffeta, satin, chiffon, velvet, or rayon.

To make the petunias, first cut a piece of paper the shape of a circle having a diameter of $1\frac{1}{2}$ inches, and, with this as a pattern, cut sixteen circles from the ribbon. Turn in the edge of each circle to a

depth of $\frac{1}{8}$ inch, and gather it all the way around, as shown in (*b*). Draw the thread tightly together and tie the ends. Cut a piece of green tie wire 4 inches long, double one end over, twist it, and sew the doubled end to the center of the back of the gathered circle of material, as in (*c*). Thread an embroidery needle with rope silk of the same color as the petunia, or of a contrasting color, make a knot in the thread, push the needle through from the back, and draw the thread tightly so that the knot will be hidden in the shirrings at the back of the flower. Make a French knot-stitch in the center of the flower and then fasten the thread at the back. A variation may be made by substituting two or three small stamens in the center in place of the French knot.

Fig. 61

Prepare each of the remaining flowers in the manner just described, and then twist the wire stems together.

The flowers may be intermingled with foliage, or clustered in long sprays, as shown, or they may be bunched so that they will have the form of a ball. They may also be appliquéd onto a foundation. Flowers of this sort are used not only for hat trimmings, but they also make artistic corsage bouquets or trimmings for sash or belt.

73. Phlox.—At times, artificial phlox is introduced as a millinery flower. Flat-topped clusters of these flowers seem to be more popular, although occasionally the clusters are round-topped. The flowers have five lobes, wide spread and bluntly pointed.

Artificial phlox is manufactured in every conceivable color of seasonal popularity. The centers, as Fig. 61 shows, are always of a lighter tone than the outer edges of the lobes.

74. Poinsettias.—During the mid-winter season, poinsettias are very much in evidence, appearing even as hat trimming. They may be made in any color of material, and are especially good for

fur-trimmed hats or all-velvet hats. In bright red suède or velvet, they are particularly well adapted for use on black hats. In this use, they may be mingled with green suède or velvet leaves, or may be used without foliage.

At Christmas time, poinsettias may be used for decorating the millinery shop, and still another purpose they may serve is that of a seasonal boutonnière on fur coats.

75. The *commercial poinsettia*, shown in Fig. 62, consists of a cluster of velvet leaves drawn to the center and finished with yellow berries. Generally, the leaves are of red in direct imitation of the Mexican shrub from which the real cluster comes, but occasionally the leaves are of green, yellow, or some other popular color.

FIG. 62

Not always are the clusters so full as the one illustrated. Sometimes the cheaper ones have only five leaves, which may be of velvet or of cotton. The flowers, which are very small and almost hidden, are not reproduced in the artificial product. Berries take their place and form a much more pleasing center.

76. The *ribbon poinsettia*, shown in Fig. 63, requires $\frac{3}{4}$ yard of No. 12 ribbon cut in three 9-inch lengths. It requires also six pieces of tie wire, each 4 inches long, six pieces of tie wire, each 6 inches long, and six pieces of baby ribbon, each 5 inches long.

To make this poinsettia, first fold each 9-inch strip of ribbon through the middle, crosswise, and right side out, forming a loop whose ends are $4\frac{1}{2}$ inches long. Cut each piece of ribbon from the lower left-hand corner to the upper right-hand corner on a long bias, or from *a* to *b*, Fig. 64 (*a*). Next, cut the loop from selvage to selvage, thus dividing each 9-inch strip into four triangular pieces. Two of these triangular pieces are required to form one petal; in other words, each 9-inch strip of ribbon will make two petals.

77. Lay two pieces of ribbon together with their faces turned inwards, as in (*b*), and sew them together along the cut bias edges with running-stitches. Then wire the raw edge of this seam with

one of the 6-inch pieces of tie wire sewed on with buttonhole-stitches, as shown in the same illustration. The wire will extend below the bottom for 1 inch or more and serve as a means of fastening the petals together. Prepare the other two 9-inch strips of ribbon in exactly the same manner, thus producing six petals in all.

After each petal has been wired along the bias seam at the back, spread the halves apart so that the face side will be out. Plait the petal at the bottom by drawing the outer corners into the stem, as in (*c*). Hold these plaits in position by wrapping the thread around them and the wire, and fasten the thread to the selvage. Make two bends in the wire, as shown, giving the petal a curled appearance.

78. After all the petals have been prepared, make the six long stamens from the 4-inch pieces of tie wire and the 5-inch pieces of No. 1, or baby, ribbon. At a point 1 inch from the top of one of the pieces of baby ribbon, make a hole with the point of the scissors and push the end of a piece of the wire through from the back, as shown in (*d*). Make a loop in the end of the wire and sew it fast on the face of the ribbon, as shown. Turn the ribbon over, and along the middle of the back sew the wire fast with buttonhole-stitches, as shown in (*e*). Merely catch these stitches into the back of the ribbon so that they will not show through on the opposite surface.

Take the 1-inch end of ribbon above the looped end of the tie wire in (*d*) and roll it down from the top to the end of the loop, face inwards, in a tight roll. Then pull the center of this roll out to the side so as to form a conical point, as shown in (*c*), and sew it down over the loop. Finish each of the remaining five long stamens in the same manner, and then fasten one stamen to the base of each of the five petals already made.

Take up one of the petals and long stamens thus fastened together, and at the base of them place about a dozen of the small white stamens of the kind that is used in making the wild rose and various other ribbon flowers. Place the second petal and its long stamen by the side of the first, and continue until the six are placed so as to encircle the bunch of white stamens. Sew them all together at the back by wrapping thread around the wires and the ribbon, and the flower is finished. Then tie the ends of the tie wires to a piece of brace wire 4 or 5 inches long, and cover the brace wire with a green rubber stem.

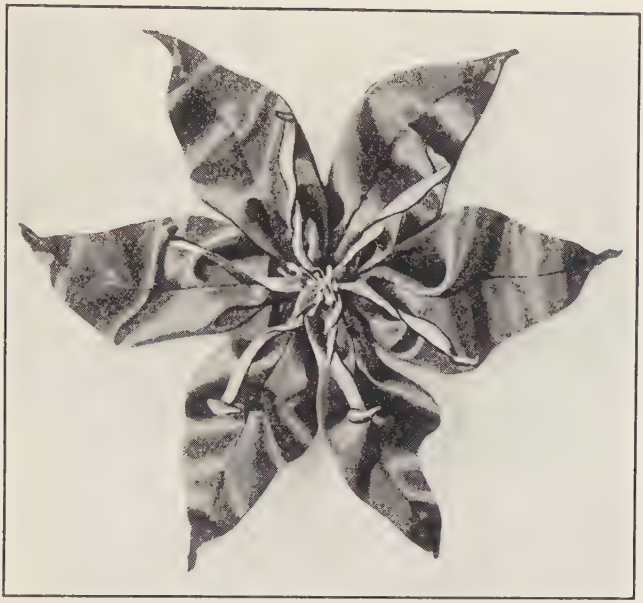
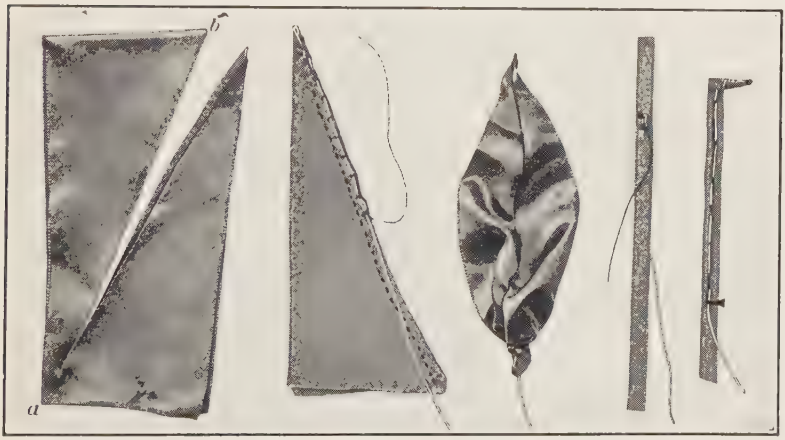


FIG. 63



(*a*) (*b*) (*c*) (*d*) (*e*)

FIG. 64

79. A variation of the preceding much-used poinsettia is the *suède poinsettia* shown in Fig. 65. For this flower, you will need six large petals and six small ones, all cut from bright red suède of good quality.

Fig. 65

The pattern for the large petals may be made as shown in Fig. 66. Fold a rectangular piece of paper, 4 inches long and $1\frac{1}{4}$ inches wide, in the middle crosswise and lengthwise, bringing it to the form shown in (*a*). Then cut through the four thicknesses of paper along a curve from the corner *a* to the opposite corner *b*, as indicated by the dotted line, and the piece will appear as in (*b*). Unfold this piece and lay it out flat, and the pattern will have the shape shown in (*c*). Use this pattern as a guide, and from the suède cut out six petals of the same size and shape.

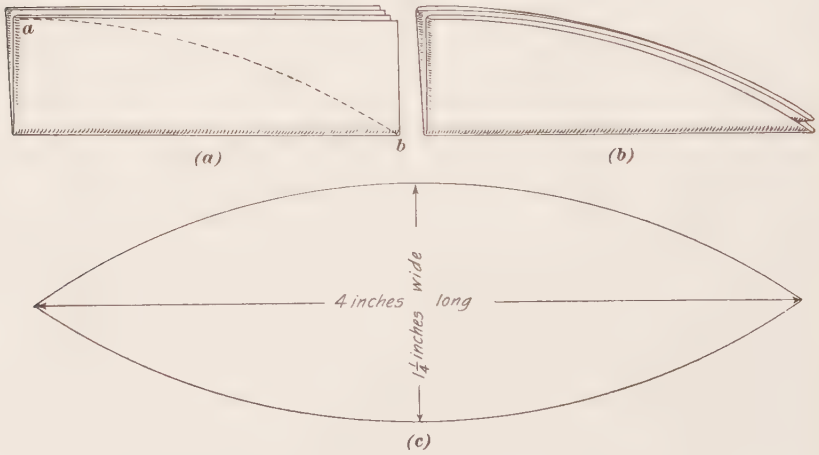


Fig. 66

80. The pattern for the small petals is made in the same manner but in a smaller size. Fold a rectangular strip of paper 3 inches long and 1 inch wide, as shown in Fig. 67 (*a*), cut along the dotted

line, and the resulting piece, shown in (*b*), when opened out, will be found to have the form shown in (*c*). Use this as the pattern for cutting the six small petals of the flower.

81. Cut six pieces of lace wire 5 inches long and six pieces 4 inches long. Paste the long wires on the backs of the large petals, along the center line, and let each wire extend 1 inch beyond the bottom of the petal. Paste the short wires on the back of the small petals in like manner.

After the wires have been pasted on the suède and while the glue is drying, make the center of the flower. For this, take a circular piece of suède 2 inches in diameter, shirr it around the raw edge,

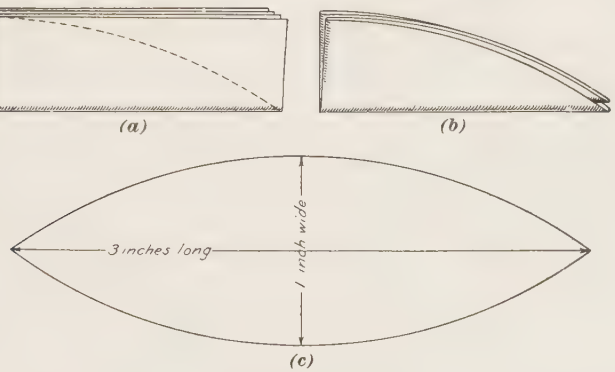


FIG. 67

and draw it over a ball of wadding around which lace wire has been wound as is described in Art. **22.** After the suède center has been finished, spread out stamens at the back of the suède ball and wrap them securely with fine wire to the stem of the ball. These stamens must be spread out in every direction from the center.

Cluster the suède petals, the large ones on the outside and the small ones on the inside, and down through the center opening push the stem of the suède ball and stamens. Then slip the hand up close to the petals at the back, and wrap all the wires together with fine tie wire.

82. The *velvet poinsettia*, shown in Fig. 68, has five petals, each of which is made of two pieces of velvet cut by the pattern shown in Fig. 69. To cut this pattern, take a rectangular strip of paper $5\frac{1}{2}$ inches long and 2 inches wide, and fold and cut it as shown in Fig. 66.

After the resulting pattern has been unfolded, cut off one end, as indicated by the line *ab*, Fig. 69, at a distance of $\frac{1}{4}$ inch from the point *c*.

Fig. 68

Cut ten pieces of velvet, using the pattern just made, and lay these pieces in pairs, with the pile surfaces together. Baste each pair, and then sew them together on the sewing machine or with back-stitching by hand, making the seam $\frac{1}{4}$ inch from the outer edge and taking care to leave an opening at the bottom of the petal, where the point is cut off. Through this opening, turn the petal inside out. Then take a piece of lace wire 12 inches long, double it at the middle and push the doubled end up inside the petal to the point at the top. Push on the wire so that the loop will spread inside the petal and fit the curve of the edges of the petals. Then twist the ends together at the bottom to hold them in position, and sew the velvet tightly to the wires.

83. After the five petals have been prepared in the way just described, make five small velvet balls from circular pieces of velvet 1 inch in diameter, each shirred around the outer edge and filled inside with wadding over which lace wire is wrapped to be used as a stem. Draw the velvet over the wadding and sew it securely at the back. Lay the five balls together, with the central one slightly higher than the other four, and then place the lower ends of the five petals next to the wire stem, just below the balls. Push the petals close to the stem, wrap the ends with tie wire or thread, fasten it securely, and the poinsettia is finished. The extra length of wire may be cut off, as the stem need not be longer than 1 inch.

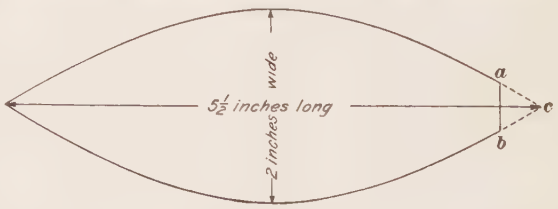


Fig. 69

84. Poppy.—Innumerable kinds of poppies are employed as hat trimming. The *manufactured poppy*, illustrated in Fig. 70, is generally made of fine, sheer silk, but the buds are not infrequently taken from the natural plant and cured, although good imitations can be, and are, made from cloth.

Although bright red poppies are the most popular and most common, poppies are made and used in all colors. They are made also in all sizes from the diminutive wild poppy to an exaggerated

FIG. 70

FIG. 71

size 6 or more inches in diameter. The smaller ones combine effectively with wild flowers, while the larger varieties are generally used separately or have their petals separated for petal crowns or for covering brim facings and entire hats.

Poppies may be double or single, may have bowl-shaped petals that are plaited and notched as those in the illustration, or may have 4 or 8 deep-cut separate petals. The centers always have numerous stamens, either in black or in yellow.

85. The separate-petal variety of poppy is very easily copied in fabric. To make a *velvet separate-petal poppy*, such as is illustrated in Fig. 71, develop a pattern similar to the one in Fig. 72.

First fold through the center lengthwise a piece of tissue paper 3 inches by 4 inches in size. Lay the folded edge exactly even with the straight line of diagram (*a*), and trace the outline of the entire

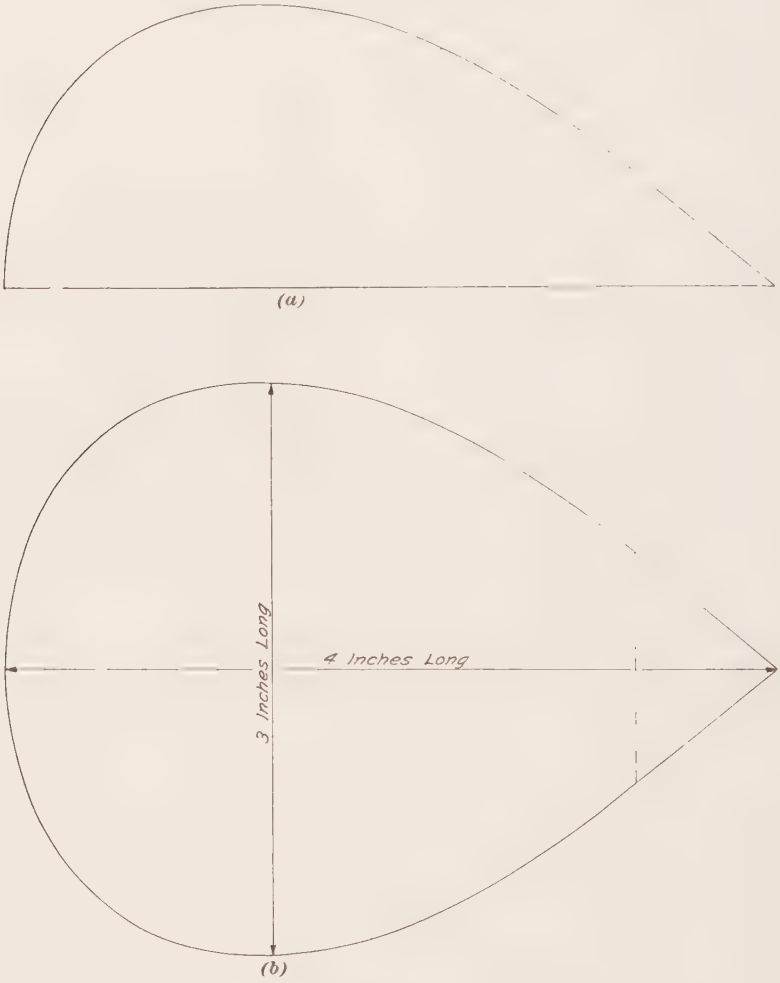


FIG. 72

pattern. Cut along the curved line, unfold the pattern, and it will be the exact size and shape of (*b*). Lay this pattern on velvet and cut four petals. Also, lay it on Georgette crêpe or some other sheer silk, and cut a lining for each of the petals.

86. On the back of the velvet petals, slip-stitch a piece of $\frac{1}{4}$-inch ribbon wire so that no stitches show on the right side. Machine-stitch the velvet petal and lining together with their right sides facing each other, but do not continue the stitching below the space indicated on the pattern by the dotted line. Turn right side out, then slip-stitch together the remaining edges. Make the other three petals in the same way.

For the center, take a circular piece of velvet $1\frac{1}{2}$ inches in diameter, gather it, and draw it over a piece of frame wire one end of which you have bent over about $\frac{1}{2}$ inch to form a loop. This loop will make the velvet stand out and retain a rounded form, and the rest of the wire will form a stem. Wind the gathering thread tightly around the gathers; then add the stamens in such a way as to cover the edges, and wind them securely with thread.

FIG. 73

87. Now you are ready to apply the petals. Press the point of each petal around the edge of the stamens, and wind over these points first with thread and next with brown mending tissue, continuing around the wire stem until all of it is covered. Shape the petals as you desire and you have a very attractive separate-petal poppy.

88. Roses.—The roses, shown in Fig. 73, are the well-known *muslin roses* that are so popular for millinery use. They come in many sizes and colors, even in blues, tans, and other tones not found in nature, and, although inexpensive, are very effective as trimming for both hats and dresses.

89. If you enjoy making ribbon flowers, and if ribbon roses will be as appropriate as the manufactured kinds, you will find the *half-blown ribbon rose* shown in Fig. 74 very easily and quickly made.

This is sometimes called the *rapid rose*, because the ribbon that forms the petals is in one continuous strip, and is simply wound around a center.

90. To make the rapid rose, shirr 1 yard of No. 16 satin ribbon in the zigzag manner shown in Fig. 4 and described in Arts. **14** and **15.** Out of the first section, form a soft center by pulling the thread tight and drawing the unshirred edge over the shirred edge,

Fig. 74

then sewing secure. Next, reverse the ribbon and draw up the shirr-string so as to cup the petal around the center, and fasten by winding the thread around the shirring. Continue this process of reversing the ribbon, drawing the shirr-string, and cupping and fastening the petals so that each overlaps the edges of the others. When sufficient petals are made, fasten the end of the ribbon out of sight at the back of the rose. Now cover a piece of brace wire with a rubber stem and fasten the rose to it.

Some practice will doubtless be required in arranging the petals before this rose can be made satisfactorily; therefore, it is advisable

to cut a strip of muslin $2\frac{1}{2}$ inches wide and 1 yard in length and to practice the making of the rose until the finished work resembles a half-blown natural rose. When sufficient expertness has been obtained in this manner, the rose can be made with ribbon, as described.

91. A manufactured *buttonnière rose*, or *buttonhole rose*, is shown in Fig. 75. This rose can be obtained in all colors and is used for corsage bouquets as well as for trimming hats. The single rose and buds, in this case satin, with a few leaves, are mounted on a rubber-wrapped stem and are generally used alone or at least in such a manner that nothing detracts from their individual beauty. Buttonhole roses are so perfectly made that they are never used in wreaths, cheaper roses of inferior workmanship serving that purpose as well.

FIG. 75

FIG. 76

92. The *cabbage*, or *chou, rose*, shown in Fig. 76, is a rather odd form, not copied from nature, but intended to be used for trimming hats that require a distinctive ornament. Flowers of this kind show up exceptionally well on rather smooth, severe hats that are made of rich materials. Generally they appear to better advantage when used alone, as they do not combine readily with many flowers.

93. The *ribbon cabbage rose*, illustrated in Fig. 77, has the same general appearance as the one in Fig. 76 except that the stamens are omitted.

To make this rose, you will need $\frac{5}{8}$ yard of No. 5 satin ribbon. First, cut six circles of sheet wadding, each $1\frac{1}{2}$ inches in diameter, and cover these with a circle of silk 2 inches in diameter, drawing the edge of the silk piece down over the edges of the wadding and

Fig. 77

fastening it at the back. The smooth surface of this covered center forms the back of the flower, as the ribbon that makes the flower is sewed on the opposite side of the covered center. Take the piece of No. 5 ribbon and sew one end of it fast to the back of the center, as shown in Fig. 78 (*a*). The stitches should extend across the end and along each selvage for a distance of 1 inch, as illustrated.

Make a vertical crease that will bring the ribbon to the left, as indicated; then make a bias crease to the right, press the bias fold

down lightly, and sew the ribbon fast to the padded center along the upper selvage, as shown in (*b*). Make two more folds in the ribbon, one almost vertical and the other on the bias, press them down, and sew the fold down as before, thus producing the second petal at the side of, and overlapping, the first one made. Continue in this manner, as shown in (*c*), until the whole $\frac{5}{8}$ yard of ribbon has been used, when the flower should appear as in Fig. 77. This rose is now ready to be mixed with rose foliage.

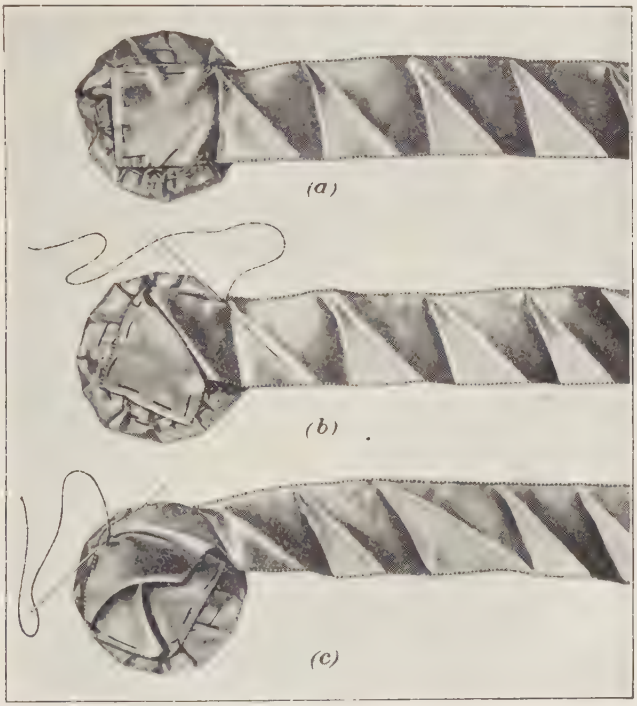


FIG. 78

94. *Crushed roses*, as the name denotes, are full-blown roses with the many petals pressed and curled to give a solid, crushed appearance, as shown in Fig. 79. They are known also as *cinnamon roses* and *crimson pinks*. These roses are made of silk or muslin, and in every color. Green, blue, gray, and tan crushed roses are quite as popular as those of natural color.

The uses of crushed roses are almost innumerable. They are separated and sewed flat so as to cover the crowns of hats, or they

are used to cover the foundations of small hats or toques, making all-flower hats, and are also extensively used for under-brim trimming and on bandeaux. Their petals may be separated so that an entire crown may be made of them, the larger petals being used at the bottom and the smaller ones near the top of the crown. Crushed roses are also favored for wreaths or other combination trims.

FIG. 79

95. For very dainty trims, roses that have somewhat the appearance of crushed roses are often made from chiffon. The *chiffon crushed rose and foliage* shown in Fig. 80 make a type of airy trim that may be used for all-white hats and dresses during the midsummer period. Georgette and maline also may be employed for them.

To make them, cut a circular foundation of crinoline $2\frac{3}{4}$ inches in diameter and cover it with chiffon, as shown at *a*, Fig. 81. Then

FIG. 80

cut a strip of chiffon 4 inches wide on the selvage and $1\frac{1}{2}$ yards long, fold it in the middle, lengthwise, and baste the edges together. Grasp one end of the strip, crush it together, sew it over and over with thread to hold it securely, and fasten it to the crinoline, as

shown in the illustration, to start the center of the rose. Continue to sew the chiffon around in a spiral, frequently pushing it forwards so that it will be spread out. The basting may be used to draw the chiffon into the form of a ruffle. When the circular piece of crinoline has been entirely covered, sew a bunch of fifteen small stamens in the center.

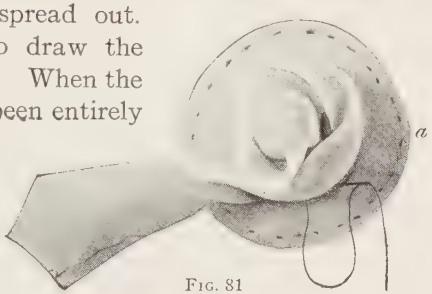


FIG. 81

After the rose has been made, take four 6-inch squares of chiffon and fold them diagonally. Then fold them once again, bringing each to the form of a small triangle. Shirr the raw edge of each at the bottom in order to produce the form of a leaf, and sew the four leaves back of the rose so that they appear as shown.

FIG. 82

96. As the name indicates, a flat rose is intended for flat trimming. The *flat rose and foliage* shown in Fig. 82 are made of muslin, but such roses come in silk and velvet also. Often a mixture of materials is used, the inner petals being of a very sheer silk and the outer petals of a heavier material.

Many are the sizes and colors in which flat roses come, for they are very adaptable and popular as hat decoration, also in the making of all-petal hats.

97. A *ribbon full-blown rose* with many petals that give it the natural appearance of a crushed rose, is illustrated in Fig. 83. To make this rose, $2\frac{3}{4}$ yards of No. 5 ribbon are required.

The petals are made in one long strip, which is folded and sewed as in Fig. 84. On this strip, at the point *a*, $2\frac{1}{2}$ inches from the end *b*, make a bias fold, as from *a* to *c*. At the point *c*, just above the selvage edge, fold the ribbon back on the bias in the opposite direction, folding it again at *d*,

which is even with the first top fold at *a*. Beginning at *c*, sew the lower folds with a row of running-stitches, as shown. Continue to fold the ribbon on the bias in zigzag fashion, and sew it down until the whole $2\frac{3}{4}$ yards have been prepared in this way. Be very

FIG. 83

careful to have all loops of exactly the same length; that is, the bias running both up and down, as from *a* to *c* or from *c* to *d*, should be $\frac{3}{4}$ inch long.

98. After the ribbon has been fully prepared in the manner shown in Fig. 84, draw the shirr-string a trifle, roll the ribbon around the end of the forefinger twice, and sew it firmly before removing it. This makes the center of the rose.

Proceed, pushing the ribbon forward on the shirr-string and sewing the strip of loops around until all the ribbon is fastened together. The slight shirring and the loose manner of sewing will

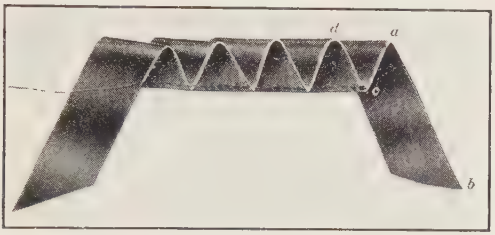


Fig. 84

give an easy ripple to the petals, and the back of the rose will appear as in Fig. 85.

After the rose has been finished, wrap the end of ribbon that projects at the center around a stem to which the rose foliage has been attached.

99. The *chiffon full-blown rose*, shown in Fig. 86, is a light, dainty, airy flower appropriate for trimming light-weight midsummer hats. This kind of flower may be used also for a shoulder or waist-line trim on dainty evening dresses.

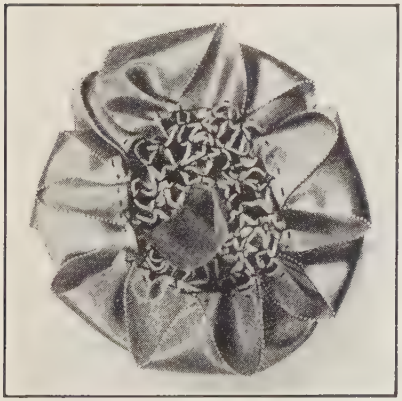


Fig. 85

Fig. 86

To make the rose, begin by making a crinoline foundation cut in the form of a circle $1\frac{1}{2}$ inches in diameter. For the petals, cut four pieces of chiffon $2\frac{1}{2}$ inches square, four pieces $3\frac{1}{2}$ inches square, five pieces $4\frac{1}{2}$ inches square, and five pieces 6 inches square; also,

cut five pieces of tie wire, each 9 inches long. Bend each piece of tie wire into a circle, as shown at *a*, Fig. 87, and twist the ends

FIG. 87

together. The ends should be 1 inch long, thus making the circle 7 inches in circumference.

Fold each 6-inch square of chiffon diagonally, lay a wire circle between the two thicknesses in the position shown in the illustration, and run a shirr-string *b* $\frac{1}{4}$ inch from the cut edges, from *c* to *d*, running it straight across the lower point, as at *e*, about $1\frac{1}{2}$ inches from *f*. Draw up the shirr-string tightly, and sew its end fast so that it cannot pull out. When the five petals have been made, lay them aside to be used later at the outer edge of the finished rose.

FIG. 88

100. Fold the other squares of chiffon diagonally and shirr them in exactly the same way as the one shown in Fig. 81, but do not wire them; instead, draw up the shirr-strings tightly and press the shirred petals into shape with the thumb and the forefinger. Cover the crinoline

foundation with a circle of chiffon of the same size, and at the center sew the four smallest petals made from the $2\frac{1}{2}$-inch squares. Just outside these sew the petals made from the $3\frac{1}{2}$-inch squares. Around them, sew the five petals made of the $4\frac{1}{2}$-inch squares, and finally the five wired petals. After these have been sewed in proper position, with the edge of one row slightly overlapping the one next to it, sew a small bunch of stamens in the center.

FIG. 89

101. In Fig. 88 is illustrated a cluster of *manufactured tea roses* with buds and foliage. The spreading petals of the tea roses and the graceful sprays that can be made of them make so popular a millinery trimming that tea roses are manufactured in many colors. The size, however, is in accordance with that of the natural flower, or a little exaggerated.

A traditional use of tea roses is for the adornment of bridesmaid's hats.

102. A *ribbon tea rose* that is a good imitation of the preceding tea rose is illustrated in Fig. 89. The first process in the making of this

rose is to cut a piece of brace wire 5 inches in length, straighten it, and at the top fasten a small bunch of stamens, using eight or ten stamens doubled and tied around the wire with a thread, as shown in Fig. 90. This wire forms the stem of the rose, as well as the center on which the petals are mounted.

Fig. 90

For the rose petals, $2\frac{3}{4}$ yards of No. 12 ribbon are required. Cut eight pieces each 4 inches long, eight pieces each $4\frac{1}{2}$ inches long, and five pieces each 5 inches long, making twenty-one pieces that will be used for the petals.

103. Fold one of the 4-inch pieces in the middle, crosswise, with the right side out. Fold one doubled corner over to a width of less than $\frac{1}{2}$ inch, as at *a*, Fig. 91; then fold it again, as at *b*, and hold the double fold lightly between the thumb and the forefinger. The double fold must be held in place by stitching through from the wrong side of the ribbon. Therefore, spread apart the two thicknesses forming the petal, still holding the double fold between the thumb and the forefinger, and take two or three back-stitches, sewing through into the double fold so as to hold it securely. Be careful, however, to see that these stitches do not go completely through the double roll and show on the face of the ribbon. The wrong side of the petal, when turned out, is shown in Fig. 92 (*a*), with the back-stitches that hold one double fold in place. The front of the same piece of ribbon is clearly illustrated in view (*b*).

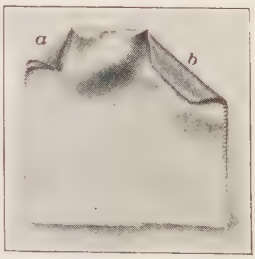


Fig. 91

104. After one corner of the petal has been doubled over and stitched fast, as shown in Fig. 91, treat the other corner in the same way and the petal will then appear as in Fig. 93 (*a*). The second doubled corner is held by stitching through from the inside, as before, view (*b*) showing how the inside of the petal looks when the two parts are separated. The stitching that holds the corners can easily be seen at the center. The thread used for sewing down the first corner is drawn across the ribbon and used for

sewing the second corner, thus doing away with the necessity of cutting off the thread and making a second knot.

In the same manner, fold the remainder of the 4-inch pieces, roll down the corners, and stitch them in place. Do the same with

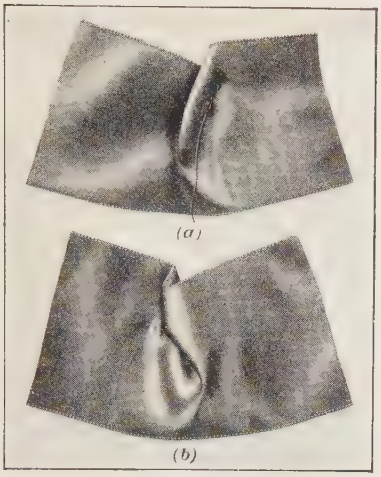


FIG. 92

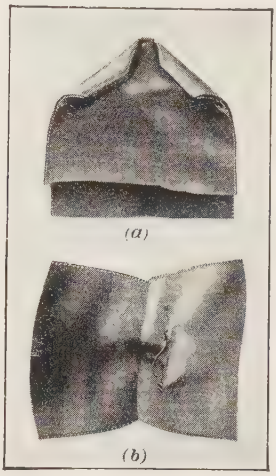


FIG. 93

the eight $4\frac{1}{2}$-inch pieces and the five 5-inch pieces. The result will be twenty-one petals of the form shown in Fig. 93 (*a*).

105. Before fastening the petals to the central stem, plait them at the bottom so as to cup them, or cause them to assume the curved shape of natural rose petals. The manner of doing this is very clearly shown in Fig. 94, in which (*a*) is a front view of the finished petal and (*b*), a back view. Make a deep plait at the lower, or cut, end of the petal and sew it down firmly. Do this with each of the twenty-one petals, and then lay them aside, the eight short ones in one row, the eight medium-sized ones in another row, and the five large ones in a third row, so that they will not become mixed and can readily be picked up in their regular order, when you are assembling them on the stem.

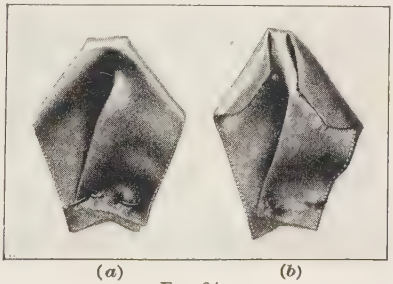


FIG. 94

106. To attach the cupped petals to the stem to form the rose, proceed according to the following directions:

(*a*) (*b*)

FIG. 95

Wrap one of the small petals around the top of the stem, very nearly covering the stamens. Sew it to the wire by wrapping the thread around several times and fastening it securely, as shown in Fig. 95 (*a*). Put on the second petal directly facing the first one, so that its inner, or cupped, side will very nearly cover the stamens on the other side, as in (*b*). Attach this petal to the wire by wrapping the thread around at the bottom and fastening it securely, the same as the first. Put on the third petal so that it is at the side of the first two and covers the opening between them. In order to give the rose a full, rounded appearance, the top of the third petal should be just a trifle lower than the tops of the first two. Sew the fourth petal at the other side of the first two, directly opposite the third petal, and at the same height as the third. Sew on the remaining four small petals, placing them so as to overlap the four openings between the first four petals.

107. Next, take the eight medium-sized petals and sew them together side by side in pairs, producing four double petals. Attach these to the wire stem by wrapping them with the thread and sewing secure. Sewing them tightly will cause the upper ends of the petals to straighten out and cup properly. Now sew the five large petals on the outside of the others, gathering their ends closely to the wire. Then hold the rose in one hand and push the forefinger down, in, and around all of the different

FIG. 96

petals in order to cup them properly, to bend them into position, and so give the rose its shape. The rose is then ready to have the foliage added.

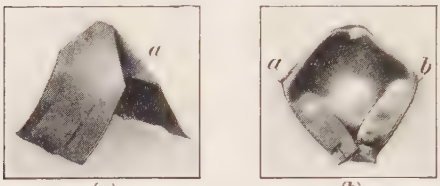
108. *White enameled, or lacquered, wild roses* are shown in Fig. 96. Both flowers and foliage, after being made of cloth, are

FIG. 97

covered with Japanese lacquer, which imparts a peculiar tint, so that the flowers and leaves take on the appearance of a piece of mother-of-pearl or shell. This process of lacquering may be applied to other flowers as well.

Lacquered flowers are used alone or in combination with other flowers, but care must be exercised in their combination.

109. The *ribbon wild rose*, shown completed in Fig. 97, is made from five strips of No. 9 ribbon, each $3\frac{1}{4}$ inches long. Fold each strip crosswise in the middle, with the satin surfaces out. Hold it between the thumb and the forefinger of one hand, close to the crease or fold at the top, and with the other hand take a needle and push the corner down into the fold, as shown at *a*, Fig. 98. Do the same at the other corner. Then sew the selvage edges together at points *a* and *b*, view (*b*), using the tie-stitch. This stitch is made by pushing the needle through the selvages and drawing it up until the knot is within $1\frac{1}{2}$ or 2 inches of the ribbon. The two ends of thread are then tied together and the thread is clipped off close to the knot. At the bottom of the petal, make two plaits, turning them toward the center, as shown. This will produce the cupped effect necessary to make the petal.



(*a*) FIG. 98 (*b*)

110. To make the center of the rose, cover a wooden button mold, $\frac{1}{2}$ inch in diameter, with a small square scrap of yellow velvet, pulling the four points together at the back, and wrap tightly with three or four wrappings of thread sewed securely. To this button mold at the back, sew a number of stamens all the way around and spread them out. Just below where the stamens are sewed to the velvet, sew the first petal, then the other petals, each slightly overlapping the preceding one. To the bunch of velvet at the back, fasten a wire 4 or 5 inches long, which should be covered with a rubber stem. Attach the wild rose to foliage, and the finished ornament is ready to be used.

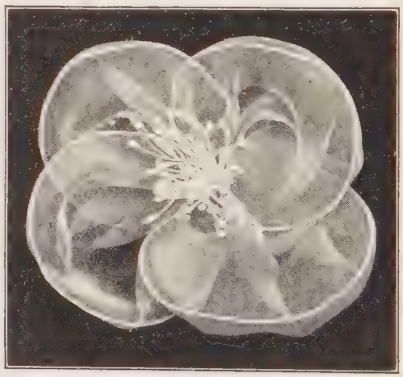


FIG. 99

A small circle of buckram the size of the bottom of a thimble may be used instead of the button mold, but it must first be covered with one or two thicknesses of sheet wadding.

111. The dainty *chiffon wild rose*, shown in Fig. 99, is made of squares of chiffon, tie wire, and stamens. Cut four pieces of chiffon, each 5 inches square, and fold them to triangular shape. Shape a piece of lace wire, 8 inches long, in a ring about $2\frac{1}{2}$ inches in diameter, and twist the ends to form a stem. Insert this loop in the center of the triangle between the two thicknesses of chiffon and run a shirr-string around the cut edges of the triangle, as shown in Fig. 87. Then, draw this shirr-string up tight to the wire stem, wind the thread around the stem several times, and stitch to make it secure.

After the four petals are made, cluster them together and sew a bunch of stamens in the center.

If several such roses are made and then grouped, some may be flattened out, while others may be drawn to a point to resemble half-opened buds.

(*a*) FIG. 100 (*b*)

112. The *velvet wild rose*, shown in Fig. 100 (*a*), consists of four velvet petals like that shown in (*b*), and a bunch of white stamens. The petals are alike and are cut according to a paper pattern that is made as follows:

Fold once across the middle a piece of tissue paper of sufficient size. Lay this folded edge along the line *ab*, Fig. 101, and with a pencil trace the heavy outline on the upper surface of the paper. Then with the scissors, cut through both thicknesses of tissue paper, following the traced line. The resulting piece, when unfolded, will be the pattern for the petals and will have the shape shown in Fig. 100 (*b*).

From a piece of velvet, cut four petals, using the tissue-paper pattern. On the back of each petal, paste with milliner's glue,

two pieces of lace wire in the positions indicated by the dotted lines and allow their ends to extend about 1 inch beyond the small end of the petal, as shown.

113. After the glue has dried, the petals are ready to be bent into form and made up into the flower. Apply the petals so that

FIG. 101

the edge of each slightly overlaps the one next to it, and the inner ends are gathered close together, so as to leave only a small opening. Push the stamens through the opening, and wrap them and the wires from each petal firmly together at the back of the flower. Squeeze or bend together each petal near the outer edge, in order to give the flower the proper form.

FIG. 102

If exceptionally nice work is desired, the back of each petal may be covered with taffeta or scraps of ribbon, pasted with milliner's glue. The silk may come just to the edge of the velvet, or it may be permitted to extend $\frac{1}{4}$ inch beyond the edge. The latter method produces an effect altogether different from that shown in the illustration.

Flowers of this kind should be mixed with artificial foliage or grasses, and may be sewed flat to the crown, side crown, or brim of the hat.

114. The four petals of the *wild rose of imitation pebbled leather*, shown in Fig. 102, are cut over the same pattern as was used for making the velvet wild rose in Arts. **112** and **113.** Wire each petal in exactly the same manner as previously instructed, and cluster the four petals together. Make the center of a circle of light-colored velvet $1\frac{1}{2}$ inches in diameter, sewing it over a small piece of wadding in the manner explained in Art. **22.** Lay a plait in the center at the bottom of each petal in order to give the flower the proper shape. Cluster together the wires from the petals, which overlap each other, and tie at the back with tie wire.

This flower can be used as a trimming for hats of imitation leather.

Fig. 103

115. To make *yarn wild roses*, such as are illustrated in Fig. 103, be guided by the following directions: First, chain 4 stitches and join in a ring with 1 single crochet-stitch. Second, chain 3 stitches, make 3 triple crochet-stitches into the center of the ring, chain 3 and fasten to the ring with 1 single crochet-stitch. These two steps form the center and one petal also. To make other petals, repeat the second step four times; then join the last petal to the first with a slip-stitch.

To form the edge that enlarges the wild rose and gives it a rippled effect, start by making 1 single crochet-stitch in the first stitch of the first petal. Then, take 2 double crochet-stitches in the chain of 3 described above, and then 2 single crochet-stitches in the top of each of the triple crochet-stitches. Next, balance the petal by making 2 double crochet-stitches in the chain of 3 and fasten with a single crochet-stitch. Repeat this for each of the petals.

116. For the making of leaves, the directions given will, if followed, result in two leaves, one a continuation, or the reverse, of the other. First, chain 6 stitches and take a single crochet-stitch in the second chain from the hook. Next, chain 1 stitch, make 1 triple, 1 double, and 1 single crochet-stitch, then 1 slip-stitch in

each of the next 4 stitches. Chain 5 stitches and make 1 single crochet-stitch in the second chain-stitch from the hook. Then, chain 1 stitch, make 1 triple, 1 double, and 1 single crochet-stitch, in the next 3 stitches. Now make 1 slip-stitch, inserting the hook both in the last slip-stitch of the first leaf and the first chain-stitch of the second leaf. Break off the yarn, leaving a short end.

With the wild roses and leaves made after these directions, attach them to a wire for the stem. Loop the wire through the yarn at the center of the rose and begin winding the wire with yarn. Part way down the stem, attach the leaves by means of the loose end, and continue winding the wire until you have made the stem sufficiently long. Knot the yarn and make secure with a few back-stitches.

Fig. 104

117. Clusters of wild roses, such as are illustrated, may be made in any coloring and also touched up with a few long- and short-stitches in a contrasting color. They make very attractive decoration for sports hats, and may be used also as ornaments on collars, furs, blouses, dresses, and various types of bags.

118. The *moss rosebuds*, shown in Fig. 104, are very small commercial rosebuds with much feathery green along the stems. These rosebuds, which are produced in many colors, are used alone or in combination with various other flowers in wreath effect for trimming purposes. Also they may be separated and used for making buckles, ornaments, cocardes, and various other kinds of trimming used for many types of hats. Because of their soft coloring, daintiness, and wiry effect, they have a distinctiveness that no other flower possesses.

119. It is not difficult to make small *separate-petal rosebuds*. The three buds shown in Fig. 105 require $\frac{1}{4}$ yard of No. 50 ribbon

to form the centers and $\frac{2}{3}$ yard of No. 5 ribbon to form the petals.

From the $\frac{1}{4}$-yard piece of No. 50 ribbon, cut three pieces on the bias, each measuring $1\frac{1}{2}$ inches on the selvage, or from *a* to *b*, Fig. 106 (*a*). To make one of the centers, fold one of these bias

FIG. 105

pieces along the middle, as shown in (*b*), with the right side out, and then wrap it around the end of a piece of lace wire 5 inches long, as shown in (*c*). Continue wrapping until it is wound on the wire and then wrap it with thread and sew it fast, as in (*d*). If the center appears too thick and bulky when the whole bias piece is wrapped on the wire, cut off the end after three turns have been wound on the wire. This applies generally when heavy material, for example double-faced satin, forms the rose.

120. To make the petals, cut the $\frac{2}{3}$-yard piece of No. 5 ribbon into twelve pieces, each 2 inches long. Fold these across the middle, right side out. Turn down the corners of each piece, as shown in (*e*), sew them fast from the inside, and then make a plait at the bottom, to cause the petal to assume a cupped form.

Make the remaining petals in exactly the same manner. Four of the petals are needed for each bud.

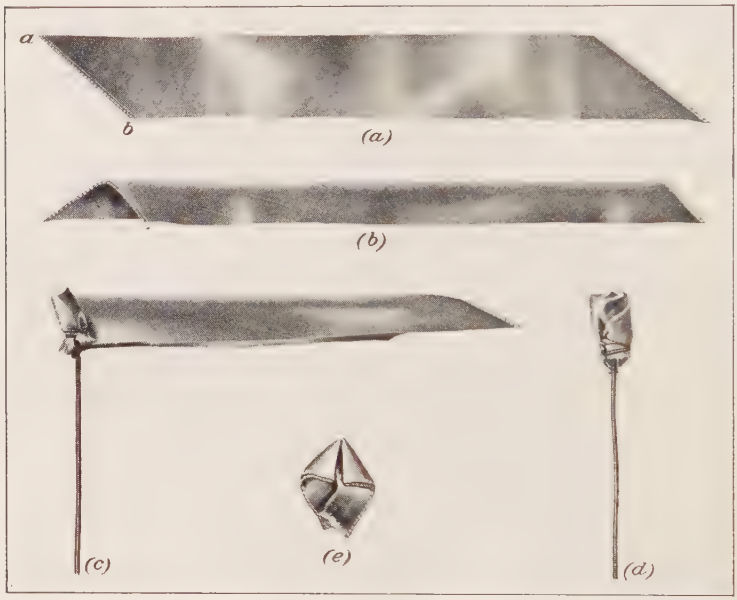


Fig. 106

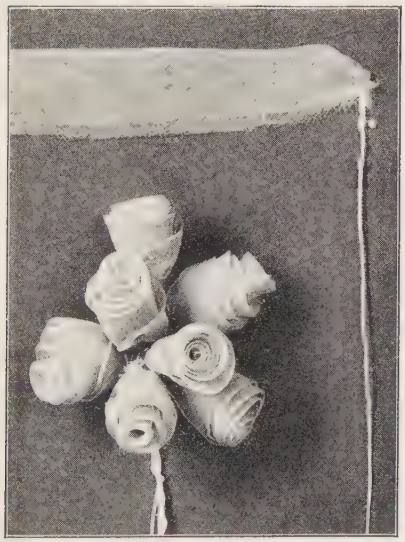
121. Around the center and its stem, as shown in Fig. 106 (*d*), place a petal with the turned-down corners outside, and attach to the center by wrapping with thread and sewing. Place the next petal at the side of the first, the third at the side of the second, and the fourth at the side of the third; then attach them all by wrapping them securely to the wire and sewing them fast. Tear up old, soiled flowers in order to get the star-shaped pieces of green cloth at the bottom of the buds. Slip one of these on the wire and press it up close to the satin petals; then slip on the green wax cup and cover the wire with a rubber stem.

Make the remaining buds in exactly the same manner as the first. The three buds may now be mixed with foliage or roses, as desired.

122. *Rapid buds*, like the one in Fig. 107, may be made in shorter time, after the manner of the rose in Fig. 83. A short piece made in exactly the same manner as that shown in Fig. 84, and containing five or six loops, is used for the bud. Grasp the projecting point of ribbon, wrap it around much more tightly than for the beginning of the rose, and continue wrapping the strip around to form the petals of the bud. Then slip the projecting point of ribbon at the bottom through the green muslin star, or calyx, and also the wax cup, and the bud is ready to be fastened to the wire stem.

FIG. 107

123. The small *chiffon rosebuds*, shown in Fig. 108 (*a*), are made as follows: Cut a piece of brace wire 5 inches long for the stem, turn back one end $\frac{1}{2}$ inch and press it down with the pliers in order to make a loop to which the chiffon may be attached. Cut a piece of chiffon 9 inches long and 2 inches wide on the selvage. Fold this strip in the middle, lengthwise, bunch one end of it together, and sew it securely to the loop at the end of the wire, as is shown in (*b*).



(*a*) (*b*)

FIG. 108

Wind the chiffon around and around until the entire length has been wrapped around the wire, but do not wrap it too tightly. Draw the end of the strip down and sew the entire roll tightly to the wire, producing a finished bud of the kind shown in (*a*). After the chiffon has been rolled on the wire, the folded edge at the top should be pulled out slightly in order to make the bud spread out in the form of a bell.

A small wax cup can be slipped up over the wire, to cover the bottom of the bud, if so desired; then a rubber stem may be placed on the wire. The buds should be interspersed with foliage, especially fine rose foliage.

124. A very simple floral effect is the *leaf-and-bud spray* shown in Fig. 109. It is made of 2- and 3-inch scraps, but illustrates a method that can be employed to make any size of leaf and bud. In this case, the material is crape, resulting in a trim that is appropriate for mourning hats, scarfs, and gowns.

To make a bud, first cut a piece of either fine lace wire or spool wire 6 inches long, and bend one end back $\frac{1}{2}$ inch to form a loop on which the bud is to be made. Fold in the middle, lengthwise, a piece of the bias crape 4 inches long, turn in the cut end so as to make a neat finish, and sew one end to the wire loop. Then wrap it around the wire, turn in the raw end, wrap it with the thread, and fasten it securely, as shown at *a*, view (*a*). Attach one end of

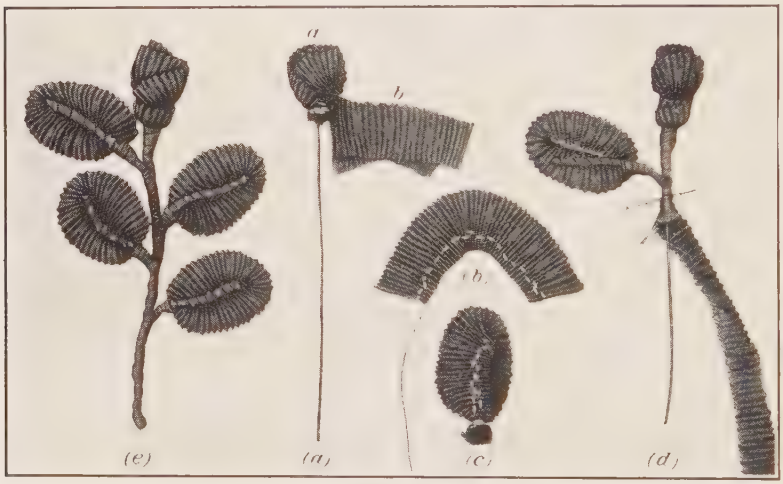


Fig. 109

the second scrap of crape, shown at *b*, to the bottom of the bud; then wrap it several times around the stem to form the calyx of the bud.

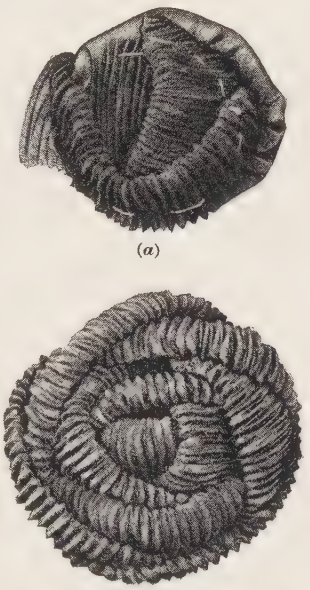
125. To make a leaf, follow the method shown in (*b*) and (*c*). Fold a strip of crape 4 inches long in the middle, lengthwise, and run a shirring of black silk thread along near the cut edge, as in (*b*). Then draw the two cut ends of the crape together at the bottom, and wrap them with the thread, as in (*c*). The leaf will almost form itself when this is done. The cut edges should be drawn together and sewed so that the raw edge will be at the back of the leaf.

Now, around a piece of fine lace wire or spool wire 3 inches long, wrap a narrow bias strip of the crape in a spiral, as shown plainly

in (*d*). After this length of wire has been wrapped, lay it in the center of the right side of the leaf, and sew it through the center with the stab-stitch.

126. An exceptionally good plan for finishing the stem of the leaf is to wrap it for a distance of $1\frac{1}{4}$ inches with crape, sew it to the leaf, and then continue to wrap the crape around the cut ends of the bottom of the leaf, down to the end of the wire stem.

After four leaves have been made in this way, fasten them to both sides of the long wire that was used to make the bud, and wrap this wire with bias crape to the lower end, where it is sewed firmly with silk thread, producing the finished spray shown in (*e*).



(*a*)

(*b*)

FIG. 110

127. One of the garnitures for hats worn during the first period of mourning is a *crape rose*, such as is shown in two stages in Fig. 110. Sprays of the crape leaves and buds shown in Fig. 109 are very often used in combination with these roses. Also, such roses are frequently used in appliqué trims.

The method of making the rose illustrated is similar to that used in making ribbon flowers of the same kind. The difference between making crape and ribbon roses, however, is that the crape is cut into short strips and sewed down to a padded foundation 2 inches in diameter. Cover the center of the padded foundation with a scrap of crape; then fold short strips of crape lengthwise in the middle and sew to the foundation, as shown in Fig. 110 (*a*). Continue to sew on the strips in this manner until the entire surface of the pad is covered, the last piece of crape having its cut edges folded under the outer edge of the rose. The finished flower is shown in (*b*).

128. Straw Flower.—The straw flower, shown in Fig. 111, is one of the few flowers not affected by dampness. It is the real flower, with a wire substituted for the straw stem. These flowers

are introduced at different times, being used in combination with field flowers.

FIG. 111

129. Sweet Peas.—In Fig. 112 are illustrated *manufactured sweet peas*. Two or three of these flowers are made on a stem, but not always are they on springs, as in the case of those in the illustration.

These dainty flowers come in many colors. They may be pure white or in solid colors, or they may be variegated, having numerous rays or darts of the tones of one color on white or on a harmonizing delicate color.

Artificial sweet peas generally come in the natural size, or they may be a trifle smaller or larger. The most common and serviceable material in which they are produced is cambric.

130. If you desire a dainty trim for an organdie hat or dress or perhaps a dress of some other sheer, delicate material, you will find that *organdie sweet peas* will prove a charming novelty.

To make one of the sweet peas in the cluster illustrated in Fig. 113, you will need to make two petals and a center. For the first petal, prepare a pattern like that shown in

FIG. 112

FIG. 113

Fig. 114. To make this pattern, draw a dotted line 4 inches long. At its center, draw another line at right angles to it and extending

1 inch below and 2 inches above. With these lines as guides, draw the petal as indicated, straight across the bottom and straight for a distance of 1 inch up each side, and then slope it from these points to the top center, following as closely as possible the curve shown in the illustration.

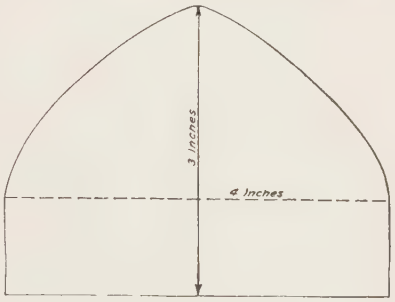


Fig. 114

131. Cut the organdie petal according to the pattern just made. Run a basting thread around the curved part of the petal and roll tightly between the thumb and the forefingers of both hands the remaining rectangular section, which is 1 inch wide and 4 inches long. Then the petal will resemble view (*a*), Fig. 115. Next, draw up the shirr-string sufficiently to cup the petal, as in (*b*), and fasten the thread securely.

Make the second petal in the same manner as the one described, but trim it off about $\frac{1}{2}$ inch all the way around, for it is to be proportionately smaller as is the case in the real flower.

For the center, fold in half lengthwise a piece of material 2 by $2\frac{1}{2}$ inches, and grasp the cut edges, pinching them together in tiny plaits. After the center has been pinched together, attach a piece of tie wire by sewing it to the gathered portion of the petal and winding it firmly with thread. Now bend the wire double and twist the two parts of the stem. The side view of the center should then appear as in (*c*).

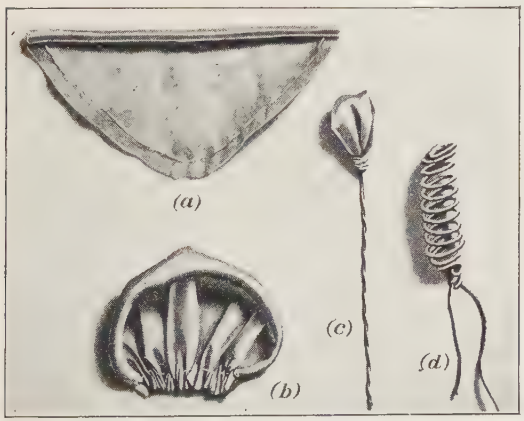


Fig. 115

132. To put the sections of the sweet pea together, begin by pinching the small petal around the center, and wind the loose end

of the thread so as to catch all raw edges. Be sure to turn this petal so that the roll is at the back, as the illustration of the finished flowers shows. In the same way, attach the large petal. Then, wind the raw edges and stem with green silk floss, and cup the petals so that they resemble the natural flower as closely as possible.

133. When you are using a bunch of sweet peas, do not fail to include a tendril or two, for tendrils do not require much time for making, and no bunch of sweet peas is complete without them.

First, wind a piece of tie wire with green embroidery floss. Then, wind the covered wire around a pencil, slip off, and pull apart slightly to make it appear as in (*d*). When you add a tendril to a bunch of sweet peas, you can make it assume any shape that seems natural or fits in with the arrangement of the flowers.

Fig. 116

134. It is not necessary to make all the sweet peas the same color. Very lovely effects may be secured by making the petals of harmonizing colors or of tones of the same color. They may also be tinted or streaked with water colors, or may be dipped in melted paraffin and made to resemble waxed flowers.

135. Sweet-William.—The flower cluster shown in Fig. 116, which is made in imitation of sweet-william, is a very popular millinery flower, particularly for combining with other nowers in wreaths and such trims.

Several of the little flowers are clustered on one stem not unlike flat-topped phlox, but the centers of sweet-william are more outstanding than those of phlox.

Sweet-william may be in solid color, as the illustration shows, or it may have a band of a darker color midway between the center and the outer edge of the petals, a design of coloring peculiar to this flower.

136. Sunflower.—The *manufactured sunflower*, shown in Fig. 117, is usually made of sateen, with a woolen center, and is obtainable principally in the natural yellow color.

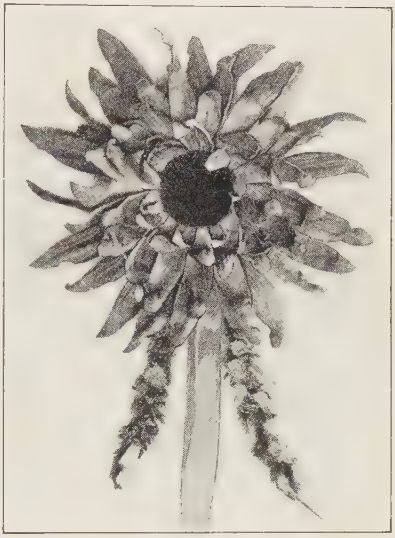


Fig. 117

Although not an exact copy, it bears a general likeness to the natural flower, and is as near a likeness as could be used for millinery purposes. Even so, a flower of this size should, under no circumstances, be applied on small ordinary hats. Sunflowers are rather heavy and need to be used skilfully in order not to spoil the proportions of a hat. One sunflower on a hat is generally sufficient.

137. A novelty ornament that has the general lines of a sunflower is the *maline sunflower* illustrated in Fig. 118. It is much lighter and daintier, however, than the preceding flower, as it is made of lighter-weight materials. It consists of a circular center and nine pointed petals.

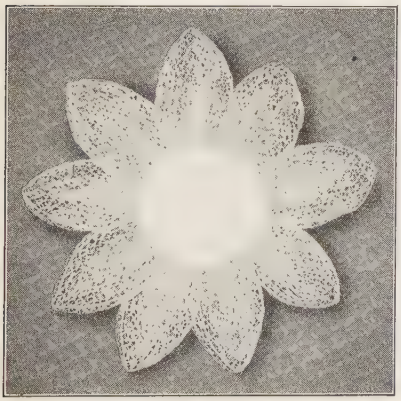


Fig. 118

For the nine petals, cut eighteen pieces of maline, each 3 inches square, and lay them in pairs, as two thicknesses of maline are used for each petal. Cut nine pieces of tie wire, each $3\frac{1}{2}$ inches long, bend them to the shape of the petals, and twist their ends together for a distance of $\frac{1}{4}$ inch to serve as stems. Fold each double square of maline diagonally, lay a wire loop between the halves, in the manner illustrated in Fig. 81, draw the maline together at the bottom of the petal, wrap it with thread, and sew it securely.

For the center, cut a circle of crinoline or buckram $\frac{1}{2}$ inch in diameter, and cover it with eight thicknesses of maline. Now attach the nine petals to the back of it. To add to the attractiveness of the flower, you may fill in the center with French knot-stitches made of bright yellow rope silk or of a color to match the maline.

138. Thistle.—Very attractive results may be obtained in millinery by use of the thistle, which is made in imitation of the *bull thistle*, the large variety so common in fields. The flower measures

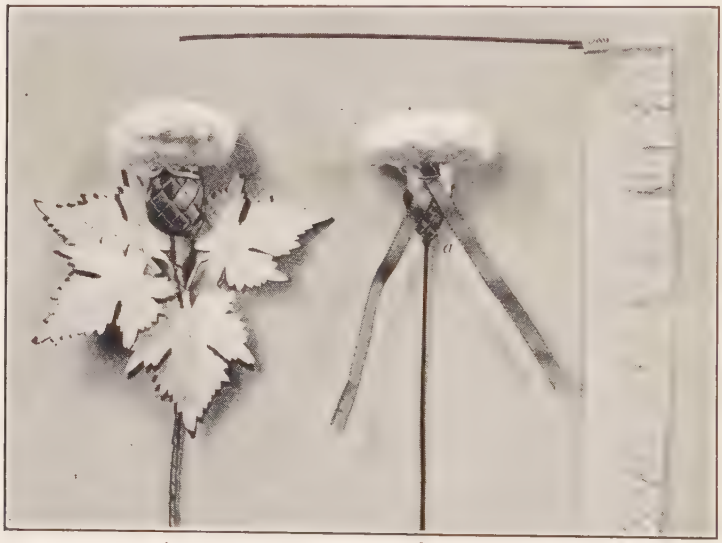


FIG. 119

from 2 to $3\frac{1}{2}$ inches across and is generally purple-pink, but other colors are introduced in the artificial variety. In shape, the thistle is tubular, branching out into a compact bud of feathery bristles.

The thistle is the only flower of its kind, no other flower having the same soft, silky bristles. Consequently, it may be utilized to make very distinctive trimming. Perhaps one of the most frequent uses is in combination with field flowers in wreaths or other garnitures requiring similar mixtures.

139. The thistles worn on a hat may be the artificial store variety or they may be made up of ribbon. If you desire to make a *ribbon thistle*, you can develop one like that in Fig. 119 (*a*). The

center of the thistle, or the thistle bud, requires 1 yard of fringed No. 5 ribbon. Fringed ribbon can be obtained at many stores; but, if it cannot be found at a local store, buy a yard of No. 5 ribbon and fringe it.

To do this, cut off the selvage along one edge, and, with the scissors, cut in squarely from the trimmed edge to within $\frac{1}{4}$ inch of the other selvage edge, making these cuts at intervals of 1 inch. The ribbon will thus be cut into a series of tabs 1 inch wide and about $\frac{3}{4}$ inch long. Fringe out these tabs, and the piece of ribbon will appear as in (*c*).

Sew the end of the fringed ribbon to a piece of brace wire $4\frac{1}{2}$ inches long, and wind the ribbon around it so that the selvage edge of the ribbon will be perfectly even. The fringe forming the top of the bud will then appear as in (*b*).

Fig. 120

140. After the bud has been formed, fill in just below the bottom of the wound ribbon a small bunch of wadding, as shown at *a*, view (*b*), and cover it with a scrap of silk. Sew green baby ribbon to the bottom of the tightly wound ribbon, as shown, and braid it to form the bottom of the bud. Nine pieces of baby ribbon, each 8 inches in length, are required to form this part of the flower. Double each piece in the middle and sew the nine pieces side by side around the bud, close under the fringed tip. Basket-weave these eighteen ends of ribbon until they appear as shown in (*a*). After they have been properly woven, use baby ribbon for wrapping the stem to cover up the loose ends of the ribbon; then fasten the bud to thistle foliage or other fancy foliage.

In wrapping the stem of any flower with baby ribbon, start the ribbon on the bias at the top and wrap it around in a spiral until the bottom is reached. The end of the ribbon should be fastened at the bottom with milliners' glue to keep it from unwrapping.

141. To make the *braid thistle* shown in Fig. 120, cut off six 3-inch lengths of silk braid, fold each in the middle so that it will be

$1\frac{1}{2}$ inches long, bunch it together at the folded end, wrap it securely with thread, and fasten the thread. After the six pieces have been prepared in this manner, fray out the cut ends of the braid with the point of the needle. Take a piece of brace wire 6 inches long and turn back the end of the wire $1\frac{1}{2}$ inches in order to make a loop to which the braid can be sewed. Then sew the six pieces side by side to the wire and wrap them securely with thread.

Cut six pieces of braid each 3 inches long, and make them up into petals by shirring them along one 3-inch edge and overlapping the outer edges. Place four of these petals around the bottom of the frayed pieces of braid, overlapping one another, so as to cover the stitches by which the frayed pieces are held to the wire, and use the remaining two to cover the base. When this has been done, wrap the wire stem with an extra piece of braid about 6 inches long, and the thistle is ready to be used on a hat.

Fig. 121

Several thistles of this kind may be intermingled with foliage, or the same kind of ornament can be fastened onto a hatpin and used as a tailored trimming.

142. Tulip.—Illustrated in Fig. 121 is a very novel artificial tulip made of several grades of material. One petal, which is intended to have prominence, is of velvet. The other four petals are of two materials, the outer covering being of cotton and the inner layer, of thin silk. These layers are stuck together and pressed into shape together, so that they appear as one layer except at the edges. The double edges, which are toothed, give an irregularity to the petals that adds much charm to the flower.

The tulip featured is cerise with blue stripes, and many other equally striking color combinations can be secured. Not all tulips are so elaborate, the cheaper ones having the simple, single-layer petals with even edges.

143. Violets.—As the violet is one of the first spring flowers, it is a particular favorite in early spring millinery. Artificial violets

may be either single or double, but are always rather large, imitating the size of cultivated violets. Fig. 122 illustrates a bunch of *manufactured double violets.*

The colors of violets are generally the tones of purple, but sometimes white and the tones of pink are in vogue. The materials in which violets come are cotton, silk, and velvet. These violets are often seen as corsage bouquets.

One of the popular uses of violets is to make entire violet hats. These are very effective indeed for spring wear.

FIG. 122

144. For making *ribbon violets*, one of which is shown at (*a*), Fig. 123, provide a piece of No. 1 ribbon 16 inches long for each violet. Also, provide a large, strong hairpin over which to make the loops that form the violet.

Bend the hairpin so that it has the shape illustrated and is 1 inch wide between the prongs. An inch or two from one end of the ribbon, place it over one of the prongs of the hairpin near the top with the satin side up. Then bring it under and up between the prongs. Pin it securely at this point. Now take the long end and draw it over and then under the other prong, giving it a half turn in order that the satin side may be on the outside of the hairpin. Hold the ribbon firm and taut, and continue this process until eight loops are formed, as shown in (*b*). Pin the last loop also.

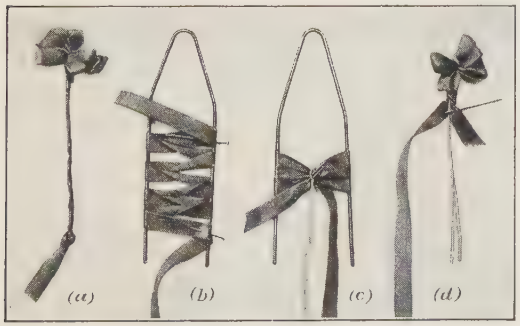


FIG. 123

145. When you have completed the correct number of loops, twist a piece of fine, silk-covered tie wire around the center, pinching it tight, as at (*c*), so as to hold the loops

firm. Then, remove the pins, slip the loops off the hairpin, and crush the centers together so as to make the petals of the flowers spread out properly. Hold the short end of ribbon along the wires and wind the long end over both the wires and the short end of ribbon, as at (*d*). Continue twisting the ribbon until the stem is

FIG. 124

the desired length, and finish the end with a tight knot, such as is shown in (*a*).

146. Violets, such as the one described, may be used in various combinations, not only with other ribbon flowers but with foliage and manufactured flowers, as they lend softness and daintiness to any trim in which they feature. Fig. 124 shows them combined with a ribbon wild rose and maidenhair fern.

CHAPTER V

GRASSES, FOLIAGE, AND FRUITS

NATURE AND USES

1. Grasses and Foliage.—Besides flowers, other natural forms that are much used for trimming hats are grasses and foliage.

Foliage is, of course, a natural accompaniment of flowers. Oftentimes, however, flowers come in bunches of $\frac{1}{2}$, 1, or 2 dozen sprays without any foliage whatever. In such a case, particularly if a combination of flowers is to be used, the introduction of a little green is essential, so foliage is added, often that of a flower not included in the combination, or grasses, perhaps, are chosen.

Foliage and grasses may also be used alone, each for its own intrinsic value. One of the distinctive uses of foliage in this way is for all-foliage hats, made by applying each leaf separately to the foundation frame. Sometimes the leaves overlap, making a solid foliage effect, while at other times they are applied sparingly, allowing the covering of the foundation frame to show between them.

Although artificial grasses and foliage sometimes deviate slightly from the natural varieties, there is not the wide divergence that characterizes artificial flowers. The most common deviation is caused by the fact that many natural leaves are entirely too large to be imitated exactly; hence, they are produced in miniature.

2. Fruits and Vegetables.—Both artificial fruits and artificial vegetables are made by manufacturers for millinery trimmings. Grapes, cherries, currants, raspberries, gooseberries, and other small fruits are closely imitated and, if properly used, make pretty and useful garnitures for hats. Occasionally, Fashion decrees that carrots, string beans, or some other vegetable that carries out the season's prominent color be used, but this is rare. Also, vegetables

are never used in any quantity on a hat; rather, they are generally skilfully intermingled with wild flowers, foliage, or grasses.

3. Often the same firms that make artificial flowers make artificial fruit. Also, nearly all of the same materials are used, but, as it is necessary to imitate closely the skin of the fruits, these materials must be subjected to several dressings.

Another type of material that is used is a thin glass or a composition much like isinglass. This composition material is blown into the proper shape by the same methods as are used in glass-blowing. If the glass fruits are dressed, they are frosted or powdered to take away the transparent effect and to make them appear like the natural, velvety, and dust-covered fruit on bushes and trees.

FIG. 1

The vegetables that are put on the millinery market are so few that they do not comprise a separate industry. They are made almost entirely by hand, and, as there is a limited amount of these hand-made novelties, their prices are correspondingly high.

GRASSES

4. Natural Grass.—The natural grass, shown in Fig. 1, is packed in this form as a matter of convenience in shipping rather than for any other purpose. For use, it should be unwound and separated.

Natural grass is wiry with tiny seed-like pods at the ends. It is used entirely for combining with flowers, and, in order to make artistic color effects, it comes in several colors besides the natural green.

5. Oats.—The oats used on hats are none other than real oats chemically treated so as to make them sufficiently serviceable to

endure the wear and the elements to which they may be subjected. As to color, they are, in the natural state, a pale yellow, but can by dyed almost any color.

The grain sockets of oats, instead of being close to the main stem, are on separate, finer stems just as leaves are on twigs instead of on branches. This arrangement gives a light, droopy effect to sprays of oats. Those illustrated in Fig. 2 appear somewhat stiff because they have been treated to a coat of shellac to make them shiny.

Fig. 2

6. Ribbon Grass.—The term ribbon grass is used in millinery to cover any grass with elongated, flat leaves. The leaves may be only $\frac{1}{8}$ inch wide at their broadest part or they may be more than $\frac{1}{2}$ inch wide, the widest variety sometimes being striped with white longitudinally just as is the real ribbon grass. The leaves are from 8 to 12 inches long and taper gradually to a point.

Fig. 3

These grasses are very soft and fine, offering a trim with graceful, willowy droop, so are excellent to be used in wreaths, bunches, or in garnitures that are intended to fall over the edge of the brim. Fig. 3 illustrates one of these trims containing two blades of ribbon grass.

7. Timothy. — Since timothy is one of Nature's most graceful grasses, there is little wonder that it has been copied for millinery use. A long stem, from the bottom of which two very long and narrow leaves radiate,

has at the tip a cylindrical spike composed of tiny flowers that give the impression of green fuzz. The general contour of a stalk of timothy is the same as that of a cattail, but the timothy is a great deal smaller. The leaves are almost like those of ribbon grass.

8. Wheat.—The wheat, shown in Fig. 4, is made of silk muslin, the beard of the wheat being made from either hog bristles or goat bristles.

Natural wheat also is quite frequently used on hats. When this variety is desired, it is gathered 2 or 3 weeks before it is ripe enough to harvest, laid aside in a dark, cool place, and permitted to dry and cure thoroughly. But before it can be used, manufacturers treat it in an alum bath. This solution has a tendency to toughen the wheat and prevent it from shattering.

FIG. 4

Wheat, combined with artificial flowers, is a very popular trim, so, as in the case of oats, it is dyed many colors and also bleached white. All-black wheat, too, is, at times, in vogue, and metallized wheat in gold and silver is a novelty that finds favor.

One of the ways in which wheat is used alone is in wreath effect around crowns.

FOLIAGE

9. Aster Foliage.—The aster foliage, shown in Fig. 5, is a very delicate, spidery foliage that is particularly good for use with delicate, light-weight flowers, or with heavier flowers when something is needed in order to counteract the impression of solidness and lend an air of lightness. It is an exact reproduction of the natural foliage in color and appearance.

10. Baby-Rose Foliage.—The very fine, small-leaf, rose foliage, shown in Fig. 6, is another type of foliage that lends a light and airy effect. One of the best ways to use it is to combine it with small buds, as the illustration shows, but it can be used with other small or medium-sized flowers. In fact, it is one of the kinds of foliage in most common use. Rose foliage is so closely imitated by manufacturers that some artificial leaves show worm-holes.

11. Daisy Foliage.—The leaves of the daisy make one of the standard foliages, as they work up very effectively on hats. The toothed and slashed leaves are not unlike aster leaves, and they

Fig. 5

Fig. 6

give almost the same spidery effect. Fig. 29 of Chapter IV, which illustrates a bunch of daisies, contains also daisy leaves.

12. Geranium Foliage.—The geranium foliage, shown in Fig. 7, is a heavy velvet foliage made in peculiar grayish-green coloring. The minute veining and the fan shape of the geranium leaf make a very attractive foliage, yet geranium foliage is usually in vogue only when Fashion features the blossom as a favorite seasonal

flower. The only other time when it is appropriate is for very elaborate dressy hats, as it assorts well with flowers made of gold, silver, or other metallic materials.

FIG. 7

13. Lace Foliage.—The skeleton foliage, shown in Fig. 8, is made in both velvet and muslin, and is used as an eccentric novelty in connection with flowers that are of unusual shapes and colors. The veins and the edges of the leaves are outlined, forming lace-like foliage, which in some combinations is very effective.

FIG. 8

The leaves illustrated are rose leaves, but any other fairly broad and regular leaf can be cut into lace foliage.

14. Lacquered Foliage. The foliage, shown in Fig. 9, is ordinary muslin foliage covered with Japanese lacquer. In this case, ivy leaves are featured, but any other foliage can be made lustrous by treatment to a coat or two of lacquer.

The usual colors are black, brown, and green, all of which produce results that are very rich. The disadvantage arising is that foliage of this sort is heavier and less pliable than it was before lacquering.

Fig. 9

15. Lilac Foliage.—Lilac foliage, Fig. 10, is considered a staple, probably

Fig. 10

because of the pleasing shape of its leaves. The outline of a lilac leaf is fairly regular, but there is a greater distance from the widest part to the tip than from the widest part to the stem. This makes possible a rather long, concave curve on each side of the leaf, narrowing the leaf down to the point and giving very graceful lines.

As lilac sprays, even without the flowers, appear lovely on the bush, so they make equally attractive artificial foliage.

Fig. 11

16. Maidenhair Fern. The smallest and most delicate of millinery leaves comes in the form of maidenhair foliage. The shape of the little leaves and the lacy effect that they give are made clear in the illus-

tration in Fig. 124, Chapter IV, which shows maidenhair fern in combination with ribbon violets and a wild rose.

17. Mignonette.—Although mignonette, Fig. 11, has flowers, it is invariably used as a foliage and combined with other flowers. The flowers on mignonette are very small and whitish green with fringed edges; consequently, the color of a spray is green except for a little color, which is given to the tiny ball-like buds. The buds in the illustration are tinted with crimson, most of the coloring being hidden by the green fringe.

The somewhat fuzzy appearance of mignonette gives to it a quality that makes it particularly good in mixtures.

18. Violet Foliage.—The leaves of the violet are considered a staple foliage that can be obtained at any time. The particular shape of the leaves can be seen from the leaf illustrated in Fig. 122 of Chapter IV. As noted, it is different from any other leaf used as millinery trimming.

Fig. 12

Because violet leaves are regular, without the indentations that characterize many varieties of leaves, they are excellent for filling purposes and for making all-foliage hats.

FRUITS

19. Apples.—The *silk apples*, shown in Fig. 12, are made of scraps of silk filled with wadding; but satin or velvet may be used as a covering, if desired.

Cut five circles of sheet wadding, each 3 inches in diameter, roll them together in the palm of the hand in the form of a ball, and wrap a few threads around the ball to hold it in shape. Cut a circle of silk 2 inches in diameter, turn the raw edge in, and shirr around the outer edge of the circle in order to make the covering. Sew a piece of lace wire 4 inches long to the ball of wadding at the bottom, slip the silk over the ball, draw up the shirr-string tightly, and sew it securely.

Push the needle up from the bottom of the apple directly through the center of the top, and then turn the needle and push it down

again, making a stitch about $\frac{1}{8}$ inch long at the top. Make several of these stitches back and forth, drawing the thread just tight enough to make a dent in the top of the silk ball, thus giving the ornament the form of an apple.

The illustration shows four apples clustered together, but any number can be made for trimming a hat. They should be mixed with foliage or field grasses.

Fig. 13

20. The *leather apple*, shown in Fig. 13, is made of suède in exactly the same manner as the silk apple; however, the leather circle is 3 inches in diameter and should be filled with six pieces of sheet wadding, each 5 inches in diameter. The stitches in the center of the leather apple are made of several cross-stitches, and are pulled tight enough to make an indentation at the top.

Fig. 14

Leather apples, on account of their weight, should be used sparingly, only a few of them being used on a hat and those mixed plentifully with foliage. Apples of this sort are most frequently made of suède to match the hat in color, with the foliage of a contrasting color to carry out the color scheme.

21. The *silk crab-apples*, shown in Fig. 14, can be purchased or made at home. If you desire to make them, use different-sized circles of silk so that the cluster of apples will appear more natural. Follow the instruction given in Art. **19**, but for the centers use French knots instead of cross-stitches. If you make the French knots a little to one side of the center in some of the apples and add fine apple foliage, the finished cluster will more closely resemble a natural spray.

Crab-apples may be tinted with excellent results, so the colors can be whatever you desire.

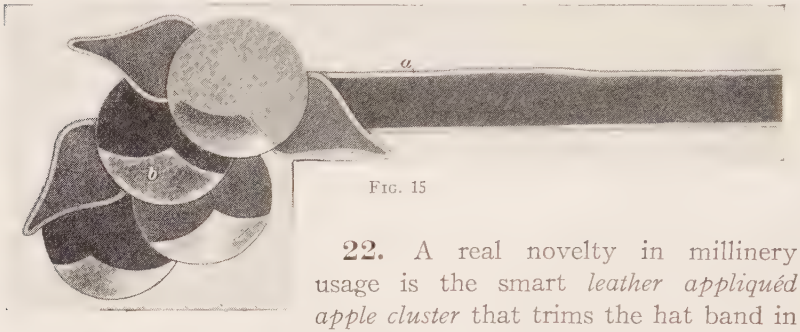


Fig. 15

22. A real novelty in millinery usage is the smart *leather appliquéd apple cluster* that trims the hat band in Fig. 15. It is of cubist inspiration, and is developed from bits of leather in harmonizing colors. A little bronze paint adds richness and distinction to the trim.

For this novel hat band, cut first a strip of leather 1 inch wide and long enough to fit around the crown. Bronze this on both edges to the width illustrated at *a*.

Next, cut four discs like *a*, Fig. 16, making them 2 inches in diameter, four unusual crescents like *b*, and three leaves like *c*. Bronze the crescents and the edges of the discs and leaves. Paste each crescent to a disc, as at *b*, Fig. 15, then paste all the motifs together, making the artistic arrangement illustrated. The cluster is then ready to paste over the joining of the hat band.

Fig. 16

Fig. 17

23. *Velvet and silk appliquéd apples* with matching leaves form the spray pictured in Fig. 17. These apples, because of the nature of the material and the method of making, are somewhat crushed in appearance, giving the effect of *padded appliqué motifs*.

For one of the apples, cut first a 1-inch buckram disc. Then cut a circle of velvet or silk, $3\frac{1}{2}$ inches in diameter, as shown in view (*a*), Fig. 18. Run a shirr-string around the outer edge, as at *a*, cut out a center 1 inch in diameter, as at *b*, and run a shirr-string around the edge, as at *c*. Draw this inner edge up tight and stitch it on the center of the disc, as shown at *a*, view (*b*), finishing the center with a cluster of French knots. Then draw the outer edge up on the under edge of the disc, and stitch.

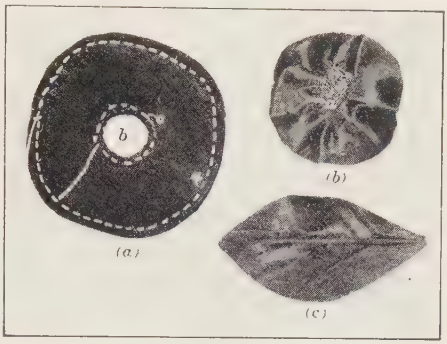


FIG. 18

To make a leaf, cut two thicknesses of the material the shape shown in view (*c*) and paste them together with a fine lace wire through the center to form the midrib.

Make another apple, another leaf, and a stem, making the stem by winding brace wire with a bias strip of the material. Then arrange these so that they form a graceful spray, as illustrated.

FIG. 19

24. Blackberries.—Illustrated in Fig. 19 is a cluster of blackberries. In order to make them appear as natural as possible, the bunches are made of a glazed composition material in black. Their purpose is generally to add character to a trim of contrasting color and nature, as the glistening black is often just the touch that is needed.

25. Cherries.—The cherries, shown in Fig. 20, are manufactured in various tones of green, white, red, and black. They are of composition material, blown into shape, so are very light in weight and sometimes are fragile in different climates.

FIG. 20

A smaller variety, also light in weight and hollow, having been blown into shape, is illustrated in Fig. 21.

FIG. 21

26. Currants.—The currants, shown in Fig. 22, are of glass blown into different-sized globes. The usual color is bright red, but the season's most popular colors are often evidenced in currants as well as in other millinery novelties. Also, the surface is occasionally frosted instead of smooth.

FIG. 22

Currants are never made by hand, for the work would be too tedious and far from giving the realistic effects that even the most inexpensive manufactured currants can give.

27. Gooseberries.—The gooseberries, shown in Fig. 23, are in delicate green tones with markings of white, and at times are quite extensively used. Although these are manufactured, similar ones can very easily be made at home in many attractive color combinations.

28. To make gooseberries, cut a circle of silk $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in diameter, according to the size of the berry desired, and shirr it in the same manner as described for making apples. Cut layers of sheet wadding the same size as the silk, draw the edges together, puff into a ball, and then loop thread around it so as to fasten it. The larger the berries, the more layers will be needed

FIG. 23

FIG. 24

for each circle of silk. Cover the ball with the silk, draw up the shirr-string, and fasten the thread.

For the markings, use white embroidery floss. Start from the bottom and push the needle through the center of the ball and up through the top; then carry the thread on the outside to the bottom, push it through the center to the top, and continue this operation until the gooseberry is marked in evenly-spaced sections, as the illustration shows. Be sure to draw the floss sufficiently tight to form slight depressions that will hold the floss in position. Finish the top of the berry with a French knot in black, brown, or dark green, and the gooseberry will be ready to attach to foliage.

29. Grapes.—Two kinds of manufactured grapes are illustrated in Figs. 24 and 25. Those in Fig. 24 are *frosted grapes* and have an iridescent appearance, while those in Fig. 25 are *transparent glass grapes* that look very thin and fragile. Both kinds come in various colors, often in the loveliest of pastel tones.

30. In Fig. 26 is illustrated a bunch of *silk grapes* made from pieces of ribbon and tie wire, combined with a bit of foliage as a background. The bunch consists of six large grapes and seven small ones. The large grapes are made from No. 16 ribbon and the small ones from No. 12 ribbon, $\frac{1}{2}$ yard of each width being required.

FIG. 25

To make these grapes, from the piece of No. 16 ribbon, cut six circular pieces each $2\frac{1}{4}$ inches in diameter, and, from the piece of No. 12 ribbon, cut seven circles each $1\frac{7}{8}$ inches in diameter. Turn under the raw edge of each circular piece and run a gathering thread around it, as shown in Fig. 27, which illustrates the appearance of the back, or wrong side, of a circular piece of ribbon. The circles form the outer coverings, corresponding to the skins of the grapes.

31. The centers, or insides, of the grapes are made of cotton wadding. From a piece of sheet wadding, cut seven circular pieces each $2\frac{1}{4}$ inches in diameter, and lay them one on top of another. Draw the cut edges down and under, press with the fingers, and work the wadding into a firm, round ball. When the ball has been properly rounded, loop the thread around it to hold it in its rounded form. Take a piece of silk-covered tie wire 8 inches long, lay its middle point on top of the ball of wadding, draw the ends down around and under the ball, and twist them together tightly. Over the ball, stretch the circle of silk shown in Fig. 28, drawing

up the gathering thread and fastening it securely around the twisted wires beneath the ball. This operation finishes one of the large grapes, as shown in Fig. 28.

The remaining five large grapes are made in exactly the same way, each requiring seven pieces of wadding. Each of the small

FIG. 28

grapes, however, requires six pieces of wadding 1¾ inches in diameter, and is covered with one of the gathered circular pieces of ribbon of the same diameter. The method of making the small grapes is exactly the same as in making the large ones.

32. When the grapes have been made, gather the ends of the tie wires together in such a way as to make the grapes assume the form of a cluster, wider at the top and pointed at the bottom, as

shown in Fig. 26. The tendrils, shown in the illustration, are spirals of wire, made by wrapping pieces of silk-covered tie wire in a spiral on a round lead pencil. The wire may be tinted to match the foliage.

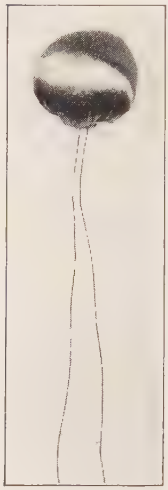


FIG. 28

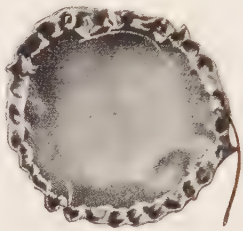


FIG. 27

Fasten the upper ends of the tendrils to the tie wires that suspend the grapes, but hide the fastenings under the large grapes at the top of the cluster. The small grapes should be placed at the bottom, and the wires can be bent so as to spread them in the form of a natural cluster. The foliage can be purchased at any store dealing in millinery merchandise, and may be attached to the grapes by twisting its wire stem with the tie wires.

Grape clusters of this kind may be made in natural colors by choosing the proper shades of ribbon; however, it is permissible to make them of any desired color of ribbon.

33. A fruit garniture that is used as a trimming on mourning hats is shown in Fig. 29. The *crape grapes* that make up this bunch are made entirely of small scraps of crape. For each grape cut an oval piece of crape 3 inches on the long axis and 2 inches on the short axis. Fold each piece on the long-welt bias of the crape and shirr along the cut edges, as shown in Fig. 30. Bunch the circle together and sew at the bottom; then sew it to the stem, which is a piece of the tie wire 3 inches long, wound with a bias of crape.

FIG. 29

The other grapes are made in exactly the same way, and then sewed together in clusters, as illustrated, to resemble a bunch of natural grapes.

34. The *crape leaves* that accompany the fruit are shown in Fig. 31, and are made according to the same method as is employed for the grapes, except that midribs are added to the front of the leaves as in the crape leaves in Art. **125,** Chapter IV. The illustration shows clearly how these midribs appear, how the leaves are attached to the stem, and how the stem appears when it is wound with crape.

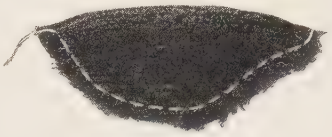


FIG. 30

35. Raisins.—A fruit trim that is somewhat out of the ordinary and that is very pleasing when a warm, rich-looking trimming is desired, can be had by making bunches of raisins similar to the one in Fig. 32. These raisins are made from raisin-colored velvet, but other deep-pile fabrics could be utilized, or, if a dainty, light-weight trim is desired, organdie or silk could be substituted.

To reproduce one of the raisins illustrated, begin by cutting a $1\frac{3}{4}$-inch square of material, as illustrated in Fig. 33 (*a*). Fold this piece from one corner to the opposite corner and run a shirr-string around the cut

FIG. 31

FIG. 32

edges, as illustrated in (*b*), taking rather long stitches so as to produce plaits rather than gathers in the finished raisin. Also, attach

a doubled piece of fine wire to the point opposite the folded edge, as illustrated. Next, draw up the shirr-string and wind it firmly around the end where the tie wire is attached. Pinch together the plaits in the velvet, and the finished raisin will appear as in view (*c*).

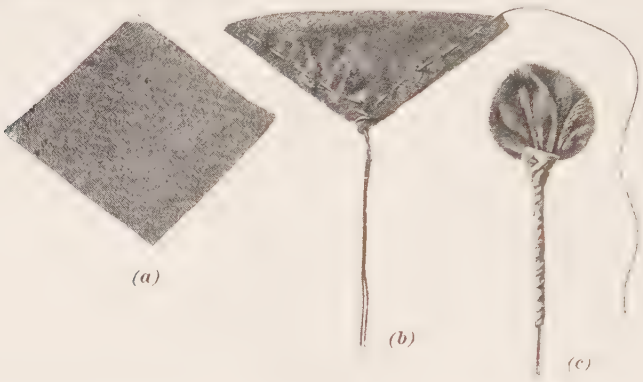


Fig. 33

The number of raisins that you will need to make depends on the size of the bunch you desire. The one illustrated contains nine raisins.

To bunch the raisins, interwind their stems; then attach velvet leaves either of the manufactured kind or of the velvet out of which the raisins are made. To make a neat finish, wind as much of the stem of the bunch as possible with mending tissue of a brown or tan color.

Fig. 34

36. Tomato.—The tomato, shown in Fig. 34, is made of brick-red velvet. Cut nine circles of sheet wadding, each 4 inches in diameter, lay them in a pile, press them in the palm of the hand until they take the form of a flattened ball, and wrap a few threads around the ball to hold it in shape. Cut a circle of velvet 4 inches in diameter, shirr it around the edge, attach a piece of brace wire or lace wire to the ball of wadding, and slip the velvet covering over the wadding. Draw the shirring thread tight, and fasten it securely with a few back-stitches.

Thread a needle with silk thread of the same color as the velvet and push the needle through the ball from the bottom, so that it comes out directly at the center of the top. With the thumb, push the velvet in slightly at the top, draw the silk thread down over the side of the velvet ball, and again push the needle up through the center of the ball from the bottom. Draw the thread down over the side of the ball at a distance of about $\frac{1}{2}$ inch or a little more from the first thread, and continue as before until eight threads have been drawn over the velvet. Be careful to draw each thread down tight enough so that it will be hidden in the pile of the velvet. The method of drawing the thread over is shown clearly in the illustration.

Velvet tomatoes, which may trim either summer or winter hats, should be used sparingly and mixed with foliage.

CHAPTER VI

FEATHERS AND FEATHER-LIKE TRIMS

USAGES OF FEATHERS

1. Range of Feather Trims.—For a long period of hat history, the word ostrich was synonymous with the word feather. At the same time, these feathers were priceless, for the ostrich was a wild bird, and the feathers of only an occasional dead ostrich could be obtained. That condition, however, has become vastly different, for at the present time there is scarcely any limit to the varieties of feathers that are used for millinery purposes. Besides the graceful feathers of the ostrich, the stiff, angular wings and quills of many birds have come into vogue, as have also many man-made, feather-like trims that take the place of natural plumage and that are employed extensively because of their grace, smartness, novelty, variety, durability, and versatility.

2. Restrictions Against Feathers as Hat Trimmings.—The limit due to the lack of sufficient supply to meet the demand naturally makes some bird feathers scarcer and more costly than others. The chief restrictions, however, concerning plumage on ladies' hats have come in the nature of the bird laws of civilized countries. In the United States, the strictest country in this respect, these laws not only forbid the importation of certain plumes, but also make them liable to seizure when worn on hats. Such laws have been enacted in order to save certain species of birds, particularly egrets, which are of the heron family and which yield their coveted plumage, aigrettes, only during the breeding season. After the plumes are plucked, not only do the parent birds die, but their young are left to starve.

3. Selection of Appropriate Feather Ornaments.—With the present variety of feather trims on the market, the choosing of the

most appropriate feather ornament for a hat has become a factor that requires much discrimination. Wings, quills, and plumes are so dissimilar in contour, and result in such vastly different effects on hats, that the matter of selecting the best one for a particular use or a particular individual, must of necessity demand much forethought.

One of the main considerations is the shape of the feather. For example, as wings have such sharp angles and decided lines, they can be used on only certain types of hats or worn by only certain types of people. If curves of vague outline are desired, ostrich plumes or some kinds of feather fancies give better lines and effects.

The materials, also, on which the feather trims are to be placed form a matter of consideration, lacy and cool materials requiring very different feather ornaments from materials of greater weight and solidity.

OSTRICH FEATHERS

OSTRICH INDUSTRY

4. Origin of Ostrich Trims.—No other bird on record has furnished feathers more consistently since the remotest ages than has the ostrich. Some of the oldest Egyptian tombs contain illustrations of these birds and their feathers, but it was not until the sixteenth century that feathers were associated with ladies' millinery.

When ostrich feathers first came into use for trimming hats, they were employed largely to adorn hats worn by men, but gradually they have been used more and more on ladies' hats until, in the past century, they have become the exclusive property of women, with the exception of those worn by certain military organizations and secret societies. A few hats for men, chief among them the Alpine hat, introduced into this country from Switzerland and Austria, have one small feather placed in a bow at the side of the hat. But, with these few exceptions, feathers are used almost exclusively by women.

5. Ostrich Raising.—Africa is the home of the ostrich, but in recent years increasing numbers have been raised in other countries, including the United States. In 1818, Jules Verrieux brought

definite news that he had seen a white farmer taming ostriches at Algoa Bay.

This showed new possibilities that would meet the increasing demands of the ladies of the Empire Period. In 1857, another Frenchman, A. Chagot, offered a prize of 2,000 francs for the successful raising of ostriches. This prize was won by an English farmer in Algiers. In South Africa, the first successful ostrich farms were started in 1866 by a few Englishmen, and, in 1881, more farms were started in California, Buenos Aires, and Montivideo. Mexico, Texas, and Florida have also taken their place as centers of ostrich growing.

6. Almost all of the ostrich feathers that are used at the present time are taken from the birds on ostrich farms. Before the moult, the feathers are clipped, not pulled out, the stump of the feather being left in until the internal pulp has dried, when it is easily pulled out without injury to the reproducing glands. Cutting before the moult in this way saves the feathers from the depreciation that occurs during moulting.

The best plumage comes from the male bird and reaches its prime when the bird is about three years old. This plumage can be cut every 6 or 8 months. It is sold by the pound according to quality.

7. Preparation of Ostrich Feathers.—Single ostrich feathers, which are the natural ones, are heavy enough to be used only as blades or fancy trims. For plumes, the single blades must be lined in order to make them suitable for commercial purposes.

The majority of natural feathers come in the various tones of light brown and gray, and these are either bleached white or dyed various colors. There are, however, some male birds that have black plumage with pure white wing and tail feathers.

Ostrich is treated in several ways by processes known only to the manufacturers. Various baths are prepared for finishing purposes, even those that give a metalized and opalescent effect.

8. Use of Curled and Uncurled Feathers.—Ostrich feathers originally were kept curled, tradition claiming that uncurled ostrich was introduced by accident. Many well-dressed women, it is claimed, attended a race in Paris and were drenched by a shower

which removed the curl from the ostrich feathers they wore. As the appearance of the uncurled ostrich was rather pleasing to the eye, the next day the demand for uncurled ostrich was created, and it has been more or less popular ever since.

The reason why ostrich feathers lose their curl is because the starch with which they are treated previous to curling, becomes affected by dampness

Fig. 1

VARIETIES OF NATURAL OSTRICH FEATHERS

9. Natural Ostrich Blade.—The form in which the ostrich blade comes from the bird is shown in Fig. 1, except that the blade illustrated has been dyed in contrasting colors, in this case bright blue and black. If it were in the natural state, it would be cream-color near the stem, shading into a very light tan at the edges.

Fig. 2

These blades are from 9 to 24 inches in length, the one shown here being a 12-inch blade. Not all blades have as long flues as does this one.

10. Curled Blade.—The curled ostrich blade shown in Fig. 2 consists of a single blade having the ends of the flues curled by a curling knife. Only the best feathers can be used for this purpose, as the flues are likely to break during the curling. They range in length the same as the natural blades before they are curled.

11. Twin-Blade Trim.—Single ostrich blades are combined effectively in innumerable ways. Fig. 3 illustrates two blades fastened together, back to back, and tied firmly together at the bottom and at a point 6 or 7 inches from the bottom. The tips of the feathers are turned over, as clearly shown in the illustration.

12. Ostrich-Egg Trimming.—Very small, single-blade ostrich feathers may have the flues and ends turned down to the bottom and tied firmly together, thus forming the trimming known as ostrich-egg trimming. This arrangement is shown in Fig. 4. Five or six such feathers are usually clustered together in one bunch when used as a garniture; or, they may be separated and used individually. The wrapping at the bottom of the ostrich-egg trimming must always be covered. For this purpose, chenille cords of the same color as the feather are often used.

FIG. 3

13. Plumes.—An ostrich plume, an example of which is shown in Fig. 5, is made of a single blade of ostrich lined with three or four blades in order to

FIG. 4

make it full and heavy. Plumes of this kind come in various lengths and colors.

14. Ordinary plumes made of small blades are known as *tips*. The tips shown in Fig. 6 consist of three small ostrich feathers, one placed high in the center and the other two placed just below, so that the flues of the two lowest feathers will cover the stem of the one at the top. Occasionally, they are referred to as the *Prince of Wales tips* or *feathers*, because they are the shape of the feathers that form part of the head-dress worn with formal attire by persons who are being presented at court in England.

15. When ostrich blades are combined so that their long drooping flues give the effect of the foliage of the weeping-willow tree, they are known as *willow plumes*. The extra long flue effect is obtained by stripping the flues of one stem and tying them to the ends of the flues of an ordinary plume. Sometimes two or three flues are knotted on in order to give the length desired.

16. Ostrich plumes or bands may be imitated by using silk or ribbon. One type of *imitation ostrich plume* is shown in Fig. 7. For this, it is advisable to use ribbon with a heavy chain or warp,

FIG. 5

FIG. 6

as the body of the ribbon is all removed and nothing but the chain is used for the fringe. In this particular instance, No. 60 ribbon is used for making the plume. However, different widths may be used and different colors and tones may be assorted and blended together.

17. For making the plume illustrated, cut off twenty-four pieces of No. 60 ribbon, each 7 inches long. Be careful to cut the ribbon straight with the grain of the silk, so that the ends of the fringe will be perfectly even. Fold each piece of ribbon exactly in the middle, and $\frac{1}{4}$ inch from the fold run a line of stitching either

by machine or by hand. The appearance of one of the pieces, after it has been stitched and opened out, is shown in Fig. 8. If the stitching is done by hand, back-stitching should be employed.

Next, cut each end of the folded piece into strips about 1 inch wide, extending the cuts to within $\frac{1}{2}$ inch of the line of stitching *a*, and following the chain of the silk. A No. 60 ribbon, as in the illustration, will require four cuts, indicated by the dotted lines. Also, trim off the selvage edges to within $\frac{1}{2}$ inch of the stitching *a*.

Fig. 7

18. After the pieces have been cut into strips and the selvages have been trimmed off, the narrow strips must be fringed. This is a simple operation and is shown in various stages of advancement in Fig. 9, from the beginning at the bottom left-hand side to the finished fringing shown at the right-hand side.

To do the fringing, pull enough of the chain, or warp threads, out of one side so that the end of the silk filling, or weft, can be grasped between the thumb and the forefinger and easily removed. At times it will be found advisable to use a sharp needle for loosening the filling from the chain and pulling it out. Ravel it out to within $\frac{1}{2}$ inch of the fold.

When the fringing has been completed on one side of the fold, proceed in the same manner on the opposite side. Repeat the foregoing operations until each of the twenty-four pieces has been fringed. One of the pieces, with the fringing finished on both sides, is shown in Fig. 10.

19. Through the tucks in six of these fringed pieces produced by the line of stitching *a*, Fig. 8, slip a piece of No. 21 brace wire 36 inches long. Bend the wire in the middle, as in Fig. 11, and push the two middle pieces *a* and *b* together so that they will occupy

FIG. 8

FIG. 9

a space on the wire equal to one half the width of the ribbon. This operation of pushing the ribbon together is what produces the round, full effect at the top of the plume. Allow the other four pieces to remain straight on the wire, as shown. In the same manner, prepare three more wires, each containing six pieces of the fringed ribbon. Then lay the four wires together, one on top of the other, and fasten at the top by stitching through the edges of the ribbon pieces near the folds; also, draw all the wires close together with stitches at intervals of 2 inches throughout their entire length.

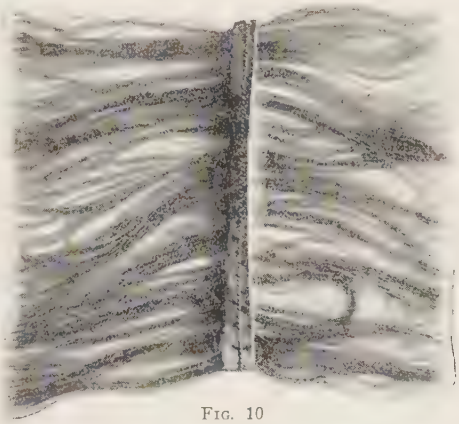


FIG. 10

20. When the four wires with the twenty-four pieces on them have been sewed together, the plume is ready to have the fringes curled. Hold the plume over the spout of a

teakettle and steam it until it becomes light and fluffy and the fringed silk threads become straight. Then heat moderately hot a curling iron of the type that is used for curling the hair, and wipe it carefully with a cloth so that it will not discolor the silken fringe. To determine whether it is of the proper temperature for the curling

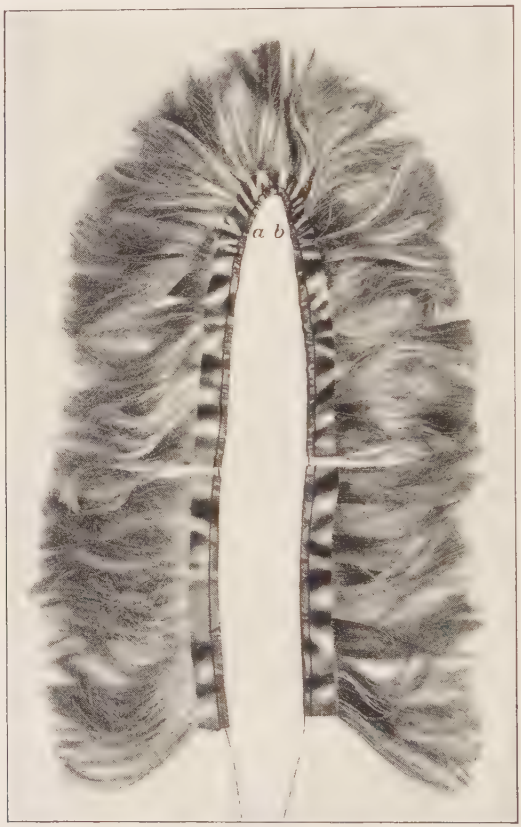


Fig. 11

operation, place a piece of paper in the iron. If the iron is hot enough to scorch the paper, it is too hot for the silk and needs to cool for a few seconds.

Grasp the silk fringe in small bunches and curl the bunches in exactly the same manner as in curling hair. In order that the ends of the silk may be curled properly, place them on top of the curling rod, with the clamp up, so that they will be pressed down and

around the curling rod. Twist the iron a time or two so that the ends will curl close up to the wire stem.

After all of the fringe has been properly curled, comb out the plume slightly in order to give it the full, rounded, fluffy appearance shown in Fig. 7. If at any time the plume loses its curl because of damp weather, it can be recurled and combed out again.

21. Mottled plumes may be made of fringed silk ribbons of six, eight, or ten colors, very beautiful effects being obtained by using two pieces of dark ribbon for the top, two pieces of a lighter tone just below, and two pieces of very light tone at the bottom; or, the order may be reversed. Pieces of silk of various sizes and colors, fringed in this manner and properly curled, may be used.

Fig. 12

22. Ostrich Bands.—Ostrich blades are also made into bands long enough to encircle the crown of a hat. These bands may be single-ply; that is, made of one blade of ostrich, or, as in the case of plumes, three or four thicknesses may be used when a full band is desired.

These bands are used either uncurled or curled slightly by turning the edges over the knife, as in the plume shown in Fig. 5. When this circle is made deep so that both sides meet at the stem, the band is called a *lobster feather band*. When the band is reversed and the curling done so that some of the flues curl over the stem on the back of the band or plume, as in the case of the plume worn by Knight Templars, it is known as the *Amazon plume*.

Ostrich bands are also made by splitting the stem of the blade and making an ostrich fringe effect. These bands of fringe may be made single or double ply, as desired.

23. Treated Ostrich.—Many means are utilized to give variety to the appearance of ostrich. Sometimes ostrich blades are dipped in a glycerine bath to give them a drenched appearance, the glycerine bath making the tiny feathers stick together. Ostrich that has been subjected to this treatment is known as either *glycerined ostrich* or *drenched ostrich*. These blades can be curled or bent in many shapes and used in countless ways.

A fancy of this nature is illustrated in Fig. 12. The drenched blade is twisted at the stem so that the flues fall in all directions and the two extremities of the stem are

FIG. 13

FIG. 14

twisted together to form a pompon effect. To enable it to retain its position, it must be wired through the center, as the twisting of the stem is likely to take away from the stiffness and make it supple. A strip of lace wire should be sewed along the stem.

24. Another type of treatment is illustrated in the blade shown in Fig. 13. This uncurled blade has had its central portion soaked in an acid solution of secret ingredients so as to remove some of the flues. The ends of the feathers are not soaked, and consequently retain their natural form. To complete the fancy,

the base of the blade has been finished with a fancy ball made of ostrich flues and an ostrich pompon.

25. Ostrich Aigrette.—In Fig. 14 is illustrated an imitation aigrette made of slender ostrich blades. From one side of the blades, the flues have been stripped, and the other is trimmed in shape and treated by a glycerine process, giving the flues a sleek appearance. Other shorter blades with the flues on both sides are looped to form a base for this ornament.

WINGS

THE MAKING OF WINGS

26. Making Artificial Wings.—On account of the vigorous efforts of different societies and clubs that are working to prevent the extermination of both native and foreign birds, manufacturers of millinery within the last few years have placed on the market what are known as man-made birds and wings. These wings and birds are made on net foundations that are wired so that they can be bent into various forms. They are a great improvement over natural wings, because they contain no bones nor pieces of flesh, and therefore are more sanitary.

The feathers that are used in almost all cases are taken from fowls that are utilized for food, such as the chicken, duck, goose, turkey, pheasant, prairie hen, guinea hen, pigeon, and others, as the manufacturer is at liberty to use, without interference by law, the feathers of any fowl or bird that is killed for food. These feathers are either glued or sewed together, fish glue being used to stick the feathers to the net foundation. Should such wings come apart, they can be stuck together again by means of milliner's glue.

27. Preserving Natural Wings. –Should one desire to use the wings of actual birds, such as the duck or the pheasant, with the bone remaining in the wing, it is necessary to rub powdered arsenic into the feathers and the bone in order to kill insects and prevent the wing from being damaged by moths. As arsenic is a poison, it must be handled with great care.

28. To cure a wing, first lay it on a table, under side up, and, with a sharp-pointed knife, as shown in Fig. 15, cut in to the

bone. If it is very large, the bone may be broken into bits by striking the wing with a hammer or hatchet. After this process, the small pieces can readily be removed. Then, with the pointed end of the knife, scrape away all the flesh. After this has been done, rub powdered arsenic in and around the bone and all through the feathers. The easiest method of applying the arsenic is to put some of it in a tin pepper-box or a talcum-powder box that has

FIG. 15

small, perforated openings at the top. Shake the box, and the powder will fall lightly on the feathers of the wing.

After the wing has been thus treated, place it under a weight or books to flatten it out and preserve its shape.

29. Milliner-Made Wings.—Milliner-made wings are introduced at different times, developed from a wide range of millinery fabrics. The shape of the wing is outlined in wire and then the wire used as a foundation, or else the shape is cut from foundation material, its edge wired, and then the covering fabric applied over the foundation.

Several milliner-made wings are included in this chapter, each one following the feather wing that it resembles most closely in contour, being developed in fabric or ribbon.

VARIETIES

30. Alsatian Wings.—The wings shown in Fig. 16 are known as Alsatian wings, because they have the general form and outline of an Alsatian bow. These wings have had the quill of each feather pared or scraped off so that they are soft and pliable. They are

made from the wings and breast feathers of domestic fowls. Hackle feathers form the ball that represents the knot of the bow.

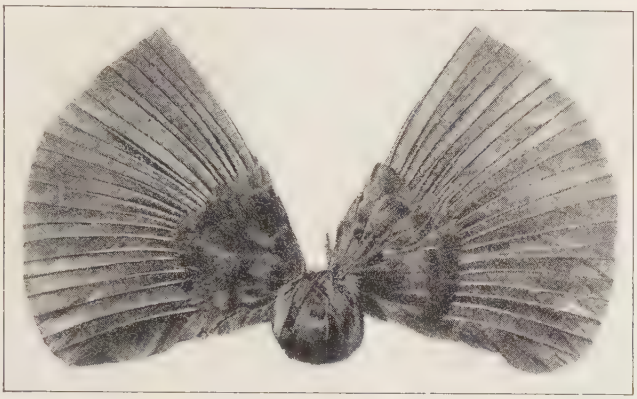


FIG. 16

31. In Fig. 17 is a ribbon wing in imitation of the Alsatian wing. Its resemblance could be closer if the spread tips were caught together at the sides.

For this wing, provide $2\frac{1}{4}$ yards of No. 80 ribbon, which is $5\frac{1}{4}$ inches wide. Cut off a little more than $1\frac{1}{3}$ yards of the ribbon, lay it out

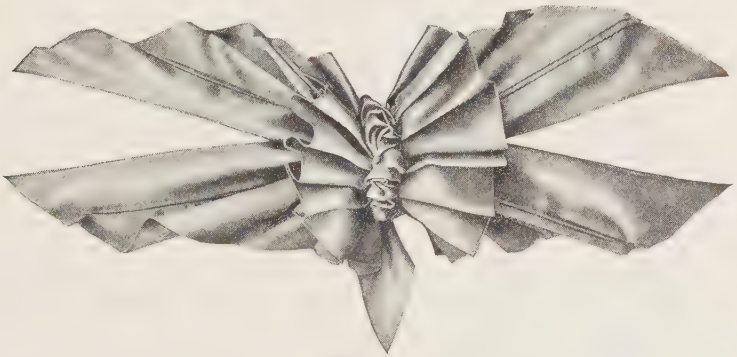


FIG. 17

flat on the top of the table, and mark it, as shown in Fig 18. Along the lower selvage, measure 16 inches from *a* and make a mark at *b*; from *b* measure off $5\frac{1}{2}$ inches to *c*; from *c* measure off 16 inches to *d*; and from *d* measure off $5\frac{1}{2}$ inches to *e*. Along the upper selvage, measure off $5\frac{1}{4}$ inches from *f* to *g*; $5\frac{1}{2}$ inches from *g* to *h*; 16 inches from *h* to *i*; $5\frac{1}{2}$ inches from *i* to *j*; and 16 inches from *j* to *k*. Cut the

ribbon on the bias, as indicated by the lines *ag*, *hb*, *ci*, *jd*, and *ek*, thus producing four pieces exactly alike, with ends cut on the bias in opposite directions.

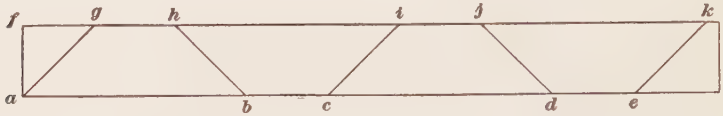
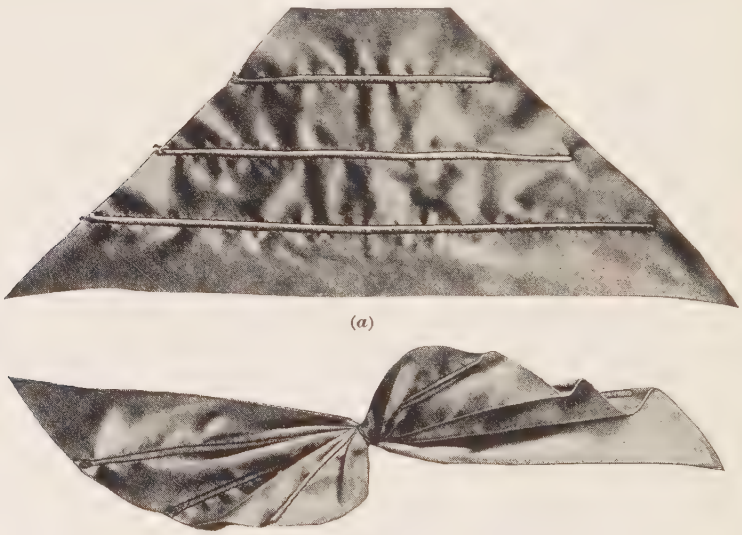


FIG. 18

32. Lay the four pieces together in pairs, back to back, with with their edges matching. Two pieces thus laid together are shown in Fig. 19 (*a*). Through both thicknesses, make three double rows of machine-stitching, closed at one end, as shown, one row directly along the middle and each of the others half way between the center row and the selvage. Push a piece of lace wire into each of these double rows of stitching between the two thicknesses of ribbon, and cut off the wires so that their ends will not protrude. Pick up the



(*a*)

(*b*)

FIG. 19

wired ribbon, lay it in even plaits, one on top of the other, at the center, wrap it with thread, fasten the thread, and give the ribbon a half twist, bringing it to the shape shown in (*b*). This piece forms one-half of the bow.

Make up the other two pieces of ribbon in the same way; that is, lay them together, back to back, stitch them with three double rows of stitching, push in the wires, plait the piece at the middle, wrap it with thread, and fasten the thread securely.

33. To make the plaited center of the bow, Fig. 17, take the remainder of the ribbon, which is almost $\frac{7}{8}$ yard, and make it up into knife plaiting, the upper surfaces of the plaits showing $\frac{1}{4}$ inch. Make two rows of machine-stitching, each about 2 inches from the selvage, leaving a space in the middle $1\frac{1}{2}$ inches wide. Push out the center plaits and puff them up by pushing from underneath.

To complete the bow, take the two pieces of wired ribbon, made as shown in Fig. 19 (*b*), cross them at the center, as in Fig. 17, and around them wrap the plaited piece just made, forming the center of the bow. Sew this piece securely to the back of the crossed pieces.

FIG. 20

34. Butterfly Wings.—In Fig. 20 is shown a pair of small, especially shaped, man-made wings, constructed on a net foundation. They bear the name of butterfly wings because in shape they resemble a butterfly with folded wings. They are made from the wing feathers of the barnyard fowl, the tip of each feather being cut so as to form a miter-point end.

35. Combination Wings.—Many of the wings in popular millinery usage are made from a combination of two or more kinds of feathers, and generally *hackle feathers* are found as one of the kinds of feathers employed. This is because these feathers, which are the long slender feathers from the neck of the rooster and other barnyard fowls, are very soft, so they make a pliable wing that can be bent to fit the shape of any type of hat.

36. The wings shown in Fig. 21 are from the wing and neck feathers of the barnyard fowl. These are very versatile wings that may be made to assume various forms. The larger wing may stand erect or be kept straight, while the smaller wing may be curved to cover the base of the first wing, or, together with the other wing,

may be twisted and bent in various other artistic forms. In this case, one wing is made to imitate the flying or spread-out position of a natural wing, while the other is made to assume the curved or folded position of the wing around the body of the fowl.

The single wings in Figs. 22 and 23 are made of the same combination of feathers but are of stronger construction and developed into trims of different proportions.

37. Still another type of combination is that featured in the novelty wing shown in Fig. 24. This wing is made from the wing

FIG. 21

FIG 22

feathers of the goose, some of the wing feathers of the mallard duck, and the breast feathers of the pheasant. This type of wing is especially good on account of the beautiful coloring of the breast feathers employed. Many beautiful combinations of colors are used in making this type of wing.

38. For the milliner-made wings that simulate the shape of spread-out and curved wings, such as shown in Fig. 21, the plaited ribbon shown in Fig. 19 (*b*) is a splendid possibility.

39. Another milliner-made wing of fabric, following the outline of a spread-out wing, is shown in Fig. 25.

To make this braid-bound *maline wing*, cut off a piece of brace wire 31 inches long, and at a distance of 14 inches from one end, make a bend, as at *a*. Then, 7 inches from *a*, make a second bend *b*, and draw the remaining end of the wire down beside the other. The wire will then have a triangular shape; however, instead of twisting the ends together now, allow them to remain about 2 inches apart until the material and the edge finish are both applied.

FIG. 23

FIG. 24

Cover this wire frame with four thicknesses of maline, sewing the edges of the maline to the wire by overcasting; and then bind the edge all the way around with narrow, light-weight silk braid, as shown. Sew the edges of the braid fast with slip-stitching, making these stitches pass through the edges on opposite sides of the wing. If desired, this sewing may be done on the sewing machine. Next, draw the lower ends of the wire together at the bottom, lay two plaits in the maline, wrap the whole with thread at a distance of about 3 inches from the ends of the wires, and twist the wires together, as shown in the completed wing in Fig. 25, these twisted wires forming a stem.

When wings of this kind are used for trimming a hat, the diagonal wires may be bent so as to crush the sides together and make the wing appear more like the feather. The wires at the base may be hidden by a round cabochon of the same kind of braid as that used on the edges of the wings.

40. Another edge finish for this same wing is shown in Fig. 26, where, instead of the binding, self-material is used to overcast the raw edges, making an even, round, corded edge.

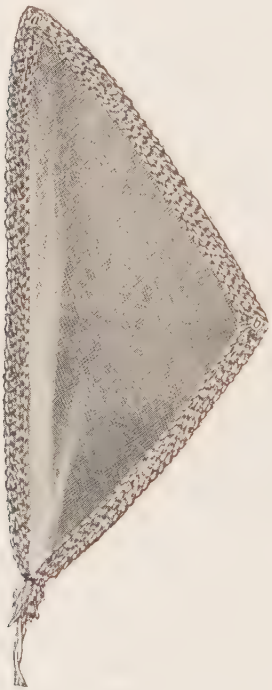


FIG. 25

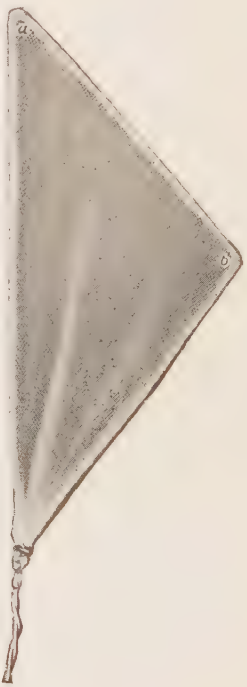


FIG. 26

As for the wing shown in Fig. 25, cover the wire frame with four thicknesses of maline, overcast the edges, lay the bottom end in plaits, and wrap with thread. Then cut $\frac{1}{2}$ yard of maline into strips 1 inch wide. Thread these strips into a darning needle and, with them instead of thread, cover the wire and the edges of the maline with close overcasting-stitches. With care, very neat corners may be made, as shown at *a* and *b*, the stitches being applied an even distance apart.

41. Still another edge finish results in the floss-sewed maline wing pictured in Fig. 27. Brace wire is bent to the outline shown in Fig. 28. The length of the wire from *a* to *b* is 8 inches. At *b*, bend it and bow it out so that the wing is 5 inches wide from *c* to *d*. Cover the wire frame with four thicknesses of maline and sew the maline to the wire with overcasting-stitches.

After the maline has been attached to the wire, finish the edge with buttonhole-stitches, as shown at *e*, using rope silk of the

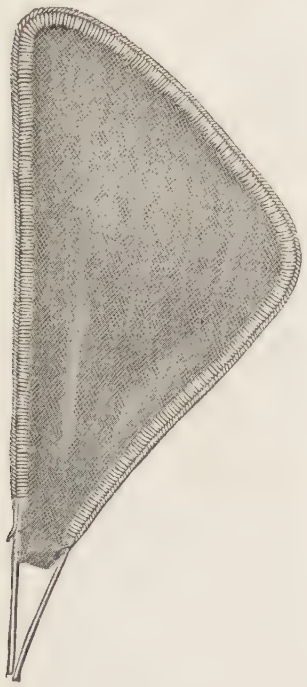


Fig. 27

Fig. 28

same or a contrasting color. After the wing has been embroidered, lay the maline in plaits at the bottom, wrap it firmly, and twist the wires so that the wing will be secure.

42. Fan Wings.—The small wing shown in Fig. 29 is a man-made wing in the shape of two fans joined together at the bottom and ornamented with glass beads fastened on wires that run through the center of the wing, thus giving a novel touch to an otherwise plain wing.

43. In Fig. 30 is illustrated another type of fan-shaped wing, sometimes known as a topknot wing. This is a popular wing, which can be used singly or in pairs for many purposes. Such wings come in various sizes and in solid and two-tone color combinations.

Fig. 29

44. Hackle Pad.—The small feather ornament shown in Fig. 31 is known as a hackle pad because it is made of hackle feathers and is soft and rounded out like a pad. These pads are light and fluffy, and are admirably adapted for use on all types of hats.

45. Somewhat similar to the hackle pad is the *hackle pompon*. This is made by fastening bunches of hackle feathers together tightly at the bottom and then spreading them apart in order to make a rounded cluster. Pompons of this sort can be used for

Fig. 30

Fig. 31

separate trims, either singly or in pairs, or they may be used at the base of quills, imitation aigrettes, wings, or any other feathers.

46. Mercury Wings.—The wings shown in Fig. 32 are man-made wings, not copied from nature, and are frequently referred to as Mercury wings, as they are of the same shape as the wings attributed to Mercury, the fleet messenger of the Roman Gods of mythology. They are made from a combination of merle and barnyard feathers, pheasant feathers sometimes being utilized and giving beautiful iridescent effects.

47. Fabric Wings.—Wings of fabric, or *ears*, as they are sometimes called, may be made of almost any kind of material. These wings make very effective trims, often being used on mourning

FIG. 32

hats, and may be applied in various ways. One very effective shape is illustrated by the combination net and English crape wing in Fig. 33. An important feature brought out in the development of this wing is the presenting of a method for drawing a pattern of any type of wing desired.

48. To make a pattern for the wing illustrated, draw a rectangle 11 inches long and 6 inches wide, as shown in Fig. 34, and divide it into small squares by drawing horizontal and vertical lines across it 1 inch apart. Locate points on the outline of the pattern as follows: Mark *a* at the lower left-hand corner; *b* on the fourth horizontal line midway between the first and the second

horizontal lines; *c* at the crossing of the second horizontal and the third vertical lines; *d* at the upper end of the sixth vertical line; *e* on the twelfth vertical line midway between the first and the second horizontal lines; *f* on the same vertical line as *e*, but midway between the fifth and the sixth horizontal lines; and *g* on the eighth vertical line midway between the sixth and the seventh horizontal lines. Then draw smooth curves through the points thus located, and the outline of the wing is completed.

FIG. 33

49. To develop the wing, bend a piece of brace wire to the exact outline of the pattern in Fig. 34. Then cut a single thickness of net or two thicknesses of maline to the size and shape of the pattern, and apply it by stitching it smoothly to the wire, as shown in Fig. 35.

Bind the edge with a binding of crape $\frac{1}{2}$ inch deep on each side, as shown at *a*, Fig. 33, exercising care in handling the wing so as not to draw it out of shape.

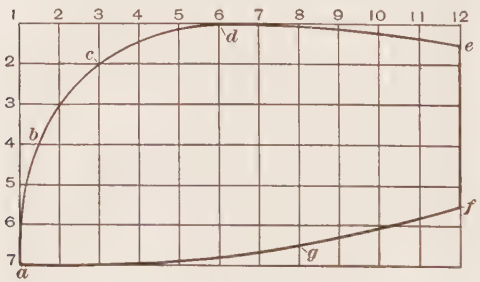


FIG. 34

FIG. 35

Cut the bias strip of crape for this binding $1\frac{1}{2}$ inches wide on the selvage. Turn in the edges; then fold the strip along the middle

over the wide edge of the wing, and slip-stitch the two edges together through the net wing.

50. For the crape folds, cut the crape the same way as for the binding, make a flat fold by lapping the crape until it measures the same width as the binding, apply it to the wing about 1 inch from the binding, as shown at *b*, and slip-stitch it along each edge to hold it flat. Make the center fold and apply it in the same manner, as shown at *c*, being very exact that the turn at the upper point is neat and flat. If both sides of the wing are shown, these folds should be backed up with two other folds applied on the reverse side of the wing.

QUILLS

QUILLS AS HAT TRIMMING

51. A quill is a single feather taken from either the wing or the tail of a bird. It is strong and stiff and varies in length from 6 inches to 6 feet. There are many differences in shape, some natural quills being round at the tip, others tapering to a point, some being alike on both sides of the stem, others narrower on one side than on the other. Novelty quills also take on countless shapes.

The quills now on the market are taken from the eagle, condor, turkey, goose, duck, hen, cock, pheasant, and gull. This is partly because of the revised game laws forbidding the killing of many native birds, and partly because the United States Government has prohibited the importation of about seventy varieties of feathers.

52. In order that natural quills may have a greater utility and offer a wider variety of trims, they are subjected to many different treatments. They are calcimined, lacquered, pasted, embossed with sealing wax, and painted in the most elaborate and ingenious designs and color effects. In some seasons, fashion favors novelties made of composition materials, and then again, made of various fabric materials, which, because they bear a general resemblance to quills, are called quills. Also, because so many of the most beautiful natural quills are debarred from use, the millinery trade must rely more now than formerly on artificial developments.

Hence, designers, starting out with the natural quill as a basic motif, are creating more and more quill fancies.

53. The assortment of quills presented in these pages is by no means exhaustive, yet it will give you an idea of the versatility of quills and introduce to you a goodly number of typical styles. It would be impossible to feature all of the different varieties, as each season adds to the number, but the examples of standard quills given will furnish you with an excellent working knowledge of this type of trim.

VARIETIES

54. Argus Quill.—The argus quill, shown in Fig. 36, is the most elaborate and possibly the most expensive of all quills. It is a very long feather of white, black, and two tones of brown, and is mottled with oval designs in golden brown. Varying from 12 to 48 inches

FIG. 36

in length, it comes from an East-Indian pheasant whose plumage is so ocellated that it is named after Argus, the giant who was famed as having a hundred eyes.

55. Calcimined Quills.—Very smart are calcimined quills, which are clipped ostrich quills or quills from barnyard fowls dipped into an opaque substance called calcimine. Numerous are the shapes and colors in which calcimined quills come. Generally, they are rather long with some unusual feature, such as a curlicue at the tip-end or a long spike at the stem-end. Sometimes, while the flues are still wet from the calcimine bath, they are dusted over with powder, which changes the texture so that it resembles suède.

56. Carved Quills.—Very beautiful quills are secured by the carving of hard substances, such as tortoise shell, celluloid, wood,

and a composition material simulating galilith or bone. These are sometimes very elaborate in design.

The quill pictured in Fig. 37 is a celluloid quill in imitation of tortoise shell and exemplifying the open-work effect that may be

Fig. 37

secured. The tortoise-shell quill is often of such a nature as to resemble a cross between a quill and an open-work Spanish comb. In the natural coloring, such quills are very beautiful.

Gay splotches of paint add much charm to composition and wood quills. Futuristic coloring is painted into the carved designs, which are often edged with gold. Also, a highly lacquered surface is added to the truly effective wood quills.

Fig. 38

57. Fabric Quills.—The category of quills would not be complete without including a representative from the fabric family, one of which is shown in Fig. 38. Quills of this nature are generally used when something unusual is desired for a tailored or semitailored hat. The material may be silk, velvet, satin, or any similar fabric that is in harmony with the rest of the hat and costume.

To make the fabric quill shown in Fig. 38, provide two strips of material, each 2 inches wide and 18 inches long. Lay one strip face down on the top of the table and cover it with milliner's glue. Next, cover with glue a piece of No. 21 brace wire of the same length as the ribbon, and lay it directly along the middle of the strip from end to end. Lay the other piece of material face down on the table,

cover it with glue, and, when the strips have been allowed to dry for a time, lay the second on top of the first so as to cover the wire. Press the top strip down firmly, so that the two pieces will stick together. Cut the top end of the quill to the pointed shape shown in the illustration, and bend the wire around in spiral form in order to give the proper curl to the quill at the top. Trim both edges evenly with the scissors, lay plaits in the quill at the bottom, and finish it with two rosettes.

58. One of the ways of decorating fabric quills is by means of beads, resulting in such novelties as *beaded quills* in either solid or scroll design form.

The foundation for these quills may be of taffeta or a similar material sufficiently firm to require a wire in the center only; or, it may be made in a manner similar to that described for the making of maline wings, except, of course, that the shape must be different.

FIG. 39

The beads may be put on before or after the making of the foundation quill. The beading frame is a means that simplifies beading, as the stamped material can be stretched on it and the frame placed between chairs or other articles of furniture, thus enabling the person doing the beading to follow the pattern with accuracy and comfort. The beads are secured by means of chain-stitches made with a crochet-needle. The only disadvantage of this is that, if the thread becomes broken, the stitches will run as in crocheting and the beads will be unstrung.

There is no limit to the kinds of beads that may be used. Novelty types, such as hollow half-beads or nail-heads, make a popular bead trimming, particularly for tailored hats.

59. *Flower quills* are, in reality, fabric quills covered with flowers. The charm of spring is in the long graceful quill that is

formed of wee flowers sewed all-over fashion to a fabric foundation in quill shape.

Fig. 40

60. Goose Quill.—The quill shown in Fig. 39 is taken from a white goose wing. In this example, the longest flues are on one side, but some of the quills are symmetrical, the shape of a quill being determined by the position it occupies in the wing or the tail of a bird.

61. Lacquered Quills.—Ordinary quills may be changed entirely by being treated to a coat of lacquer. Exceedingly attractive are these quills, which are made to have a smooth, shiny, and colorful appearance, even an iridescent sheen. They are particularly good in tones shading from blue to green and bronze. These quills come in odd shapes, from the short, tiny quill of the forest bird to arrow-like quills cut by machinery into sharp points and angles.

Fig. 41

62. Ostrich Quills.—An ostrich blade trimmed in the form of a quill is illustrated in Fig. 40. As to stem, it is stiff and stout, but the flues are softer and more feathery than those of any other quill. Such quills may be dyed in designs as well as in solid colors. Ostrich blades also have their edges pasted together to make them the shape of a quill. Three types of quills, produced by gluing the flues differently, are illustrated in Figs. 41, 42, and 43 and are known as *pasted ostrich.*

63. Pasted ostrich quills may be very easily made either with or without a foundation at their back. The *pasted-tip, ostrich blade* shown in Fig. 41 illustrates clearly the method of making the flexible type.

To make this quill, steam the feather until the curl is taken out of the flues and they are perfectly straight. Then comb them out, using an ordinary steel-tooth comb and combing from the stem toward the outer edge. Lay the feather on a table and trim off

FIG. 42

FIG. 43

the edges of the flues until the width is the same on both sides. If there is any difficulty in doing this, cut a stiff paper pattern to the shape of the quill desired, lay it on top of the feather, and hold it down firmly while you cut the flues to the outline of the edges of the pattern.

When this has been done, put a little milliner's glue on the extreme outer end of each flue, pull the flues toward the top, as shown at the upper end of Fig. 43, and press the flues together with the thumb and the forefinger until they stick. The glue should not extend onto the flues more than $\frac{1}{4}$ inch. Proceed in this manner

on both sides until all the flues are stuck in position. The quill is then finished and can be used for trimming a hat.

The appearance of the quill may be changed to some extent by painting the glued ends of the flues with gold, silver, or colored paint.

64. In Fig. 42 is illustrated a *pasted-edge, ostrich quill* in which all of the edges of the flues are caught together with milliner's glue, giving the quill the general outline of a poinsettia leaf. Nearly all of the glue is on the inside of the feather, and the tip is very firmly glued. In the center of the quill, the flues are painted in the shape of a dart, in this case the color being silver on dark blue.

Although the quill pictured is a manufactured one, it is no less perfect than a milliner-made one that has been pasted and shaped according to the method in Art. **63.**

FIG. 44

FIG. 45

65. The *backed ostrich quill* illustrated in Fig. 43 is much heavier and stiffer than the quill in Fig. 42. In the making of it, the method of pasting ostrich over a foundation is put into use. A foundation of crinoline is wired around the edge and covered with light-weight silk the same shade as the ostrich. The ostrich blade is laid over this foundation and the ends of its flues are turned over the edge and pasted to the back of the foundation. Another layer of silk is then pasted over the back to cover the ends of the flues and give the quill a neat finish on the back. A quill stem, properly bent and with the flues burnt off, is pushed between the two layers of material at the extreme tip and fastened secure with invisible stitches. The resulting ornament is a very firm and substantial one that is unaffected by the wind.

66. Pasted Quills.—Sometimes ordinary quills have finer feathers pasted on part or the entire surface of them. In Figs. 44 and 45 are illustrated two varieties of such quills.

The *pasted quill of pheasant coloring* shown in Fig. 44 is a small, ordinary quill with two contrasting kinds of pheasant breast feathers pasted over the front surface. The dark part of the quill is covered with glistening green feathers edged with black, while the lighter portion is covered with orange feathers having black markings.

67. The *pasted hackle quill* shown in Fig. 45 has the feathers pasted on only one-half of the quill. In this case, natural Rhode Island red feathers and bright green hackle feathers are applied in

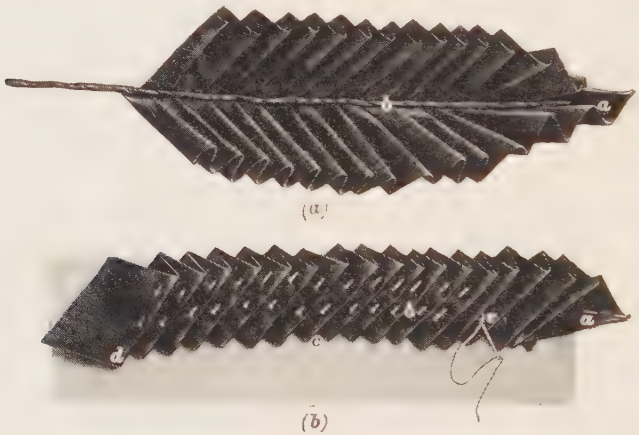


FIG. 46

striped fashion to a henna-color quill, producing a very effective color combination.

68. Ribbon Quill.—The side-plaited grosgrain ribbon quill shown in Fig. 46 (*a*) makes a very attractive trim for a tailored hat, and an appropriate, smart trim for a mourning hat. This quill may be used on a dull straw or a fabric hat, its position or arrangement being governed by the type of hat and the fashion of the season.

69. To make this quill, cut a strip of crinoline 3 inches wide and as long as you desire the quill. Fold back $\frac{1}{2}$ inch on one end of the ribbon, as at *a*, view (*b*), and pin to the center of one end of the crinoline. Lay the ribbon in slanting plaits about 1 inch deep and

pin to the crinoline, as at *b*, shaping them out through the center, as at *c*, and in at the end, as at *d*. Next, stitch the plaits down about $\frac{1}{2}$ inch from the inner edge at *a*, for a distance of 2 inches to *e*, then gradually in toward the inner selvage of *b*, and along the selvage to *d*.

For the other side of the quill, lay the plaits on the opposite side in the same manner, having the selvages meet through the center from *d* to *b*, and the plaits taper from *b* to the end to correspond with those on the other side. Then stitch the two ends together, as at *a*, view (*a*).

For the center stem, wind a piece of brace wire with a strip of the ribbon, and stitch it secure through the center, as at *b*, allowing the stem to extend beyond the end about 2 inches, as shown. Next, cut away all the crinoline at the back to about $\frac{1}{2}$ inch on each side of the stem, and paste a strip of the ribbon over the crinoline to make a neat finish on the back of the quill.

FANCY FEATHER ORNAMENTS

NATURE AND RANGE

70. Fancy feathers is the name applied to man-made feather ornaments of natural and treated ostrich, barnyard fowl, Chinese pheasant, and various other versatile feathers. These are sprayed out and pasted on foundation pads, into stick-up ornaments, wings, and various other shapes.

The use of feathers, like that of all other hat trimmings, is subject to change in seasons and fashions. The form in which the feather-fancy trimming is applied varies also. Large sprays and wings may be used one season, while the next season will show a decided preference for close-clipped pompons, and the following year, small motifs, fanciful pads, and novelty band effects.

Feathers may be treated so as to give a variety of effects; for example, several different kinds of feathers taken from different fowls are often combined to make one fancy ornament. These different fowl feathers are dipped in baths or are burnt according to the same methods as those employed for ostrich.

VARIETIES

71. Biot.—In Fig. 47 are illustrated the *genuine biot feathers* from a bird of the same name. These blades are very supple and tough, so they prove an exceedingly durable trim that the wind does not disturb. Biot feathers come in black, white, and all colors. They are used in the making of numerous pompons and other feather fancies.

Imitation biot made from duck feathers is illustrated in Fig. 48. It is softer than genuine biot and not so durable. The flues are joined together, as in a quill, and when once pulled apart, do not spring

FIG. 47

FIG. 48

back as do the flues of the real biot feathers. However, the imitation biot often makes a more droopy, graceful fancy than does the real biot.

72. Blondine.—The term blondine is applied to the type of feathers illustrated in Fig. 49. These feathers are of the lightest and softest kind and droop in graceful lines wherever they are used. Also, the many beautiful colors in which they come make them particularly appealing. There are many grades, the cheapest grade, or the left-over, being those varicolored feathers found in feather dusters.

73. Cross Aigrettes.—The cross aigrette, shown in Fig. 50, is a tuft of fine, stiff feathers taken from the tail and under the

wing of the white heron, or egret. Because the wearing of these feathers is prohibited by law in many countries, the feathers that

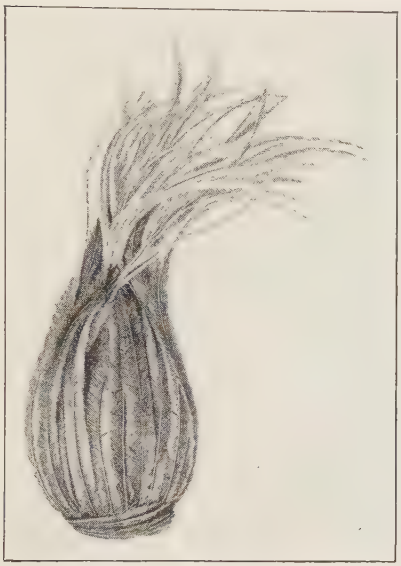


Fig. 49

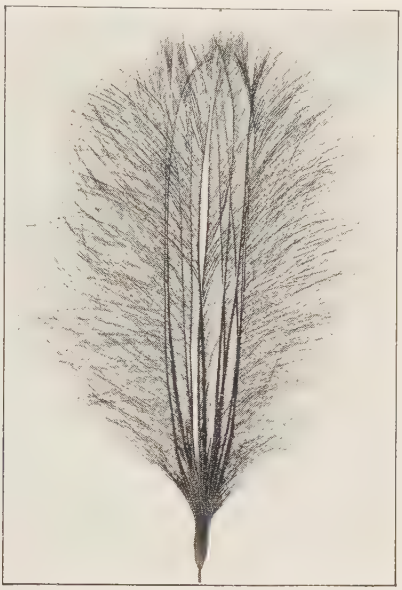


Fig. 50

are on the market are imitations made from hog's bristles, goat's hair, burnt goose, hawk, and ostrich blades, and called *osprey*.

74. Cock Feathers.—The term cock feathers, or *coque feathers*, is applied to the feathers from the tail of the domestic rooster or cock.

The feather fancy illustrated in Fig. 51 is made after the general contour of the rooster's tail. The feathers illustrated here are a deep green with an iridescent cast, but cock feathers come in other colors, always with the same iridescent glint or sheen.

Fig. 51

75. Duck.—Wild ducks have beautifully colored wing and breast feathers, which are used in the making of feather fancies.

76. Goose.—No feathers are softer than the breast feathers of the goose. In their natural form, they are used for feather breasts, pompons, and extra feathers pasted on quills or at the base of fancies. When processed, or treated to an acid bath, so as to remove some of the fronds and give them an aigrette-like appearance, they are termed *burnt goose*. Burnt goose is rather high in price, because this treatment or burning process ruins a great quantity of stock. However, it is very widely used, not only in feather fancies but in wings and in bands. Also, it forms the best imitation of heron aigrette. A combination pompon of clipped ostrich and burnt goose is shown in Fig. 52, the ostrich forming the base and the strands of goose spraying out from it and giving a very softening effect.

Fig. 52

77. Goura.—The aigrette shown in Fig. 53 is a *genuine goura*, which comes from the top of the head of a very large pigeon known as the crown pigeon and found in Australia. These feathers are delicate and rather short. The plain gray is from the female and the blue with white marking, from the male. As only a limited number of the feathers grow on each bird, they are very expensive and should be classed with paradise plumes. Also, they are among those feathers whose sale in the United States is prohibited.

Fig. 53

78. The feather shown in Fig. 54 is *imitation goura.* It is very cheap because it can be made from goose feathers or any other inexpensive feather from which part of the flues can be burned away by acid. As feathers of this kind are glued together and are more or less frail, they should always be placed on the hat so that they will be protected; in other words, they will last longer if they are protected by the brim so that the flues cannot be broken off easily.

79. Grebe.— The term grebe means the soft, silky feathers of the sea bird of that name. They are commonly called *breast*

Fig. 54

because they are taken from the expensive white iridescent breast of the bird. They are used chiefly for banding side crowns and making entire turbans.

80. Humming-Bird Head.—The humming-bird head, an example of which is shown in Fig. 55, was originally used as a finish at the base of a spray of real paradise aigrettes. Since the law has forbidden the use of these aigrettes on hats, the humming-bird head is rarely used, except that the lower part of the neck and breast feathers are made into pads.

81. Marabou.—The fine, downy feathers of the wing and tail of the African stork furnish marabou. These soft feathers are made in fancy effects for hat trimmings and for edging children's bonnets as well as for dress trimmings.

82. Merle.—Formerly, the merle, or European blackbird, a small bird of very brilliant plumage, was popular for millinery usage. Its importation into this country, however, has been restricted, as the killing of birds for their plumage has been outlawed. To take the place of the real merle, imitation birds are made by pasting feathers on padded foundations. For this purpose, iridescent feathers in many colors, such as dark greens, golden browns, and deep reds, are generally chosen.

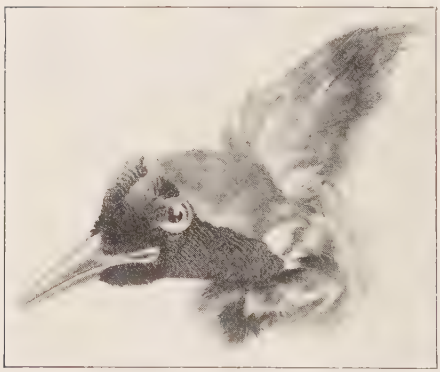


FIG. 55

FIG. 56

83. Numidi.—The numidi is a long pliable feather from the Numidian crane, a bird that resembles the heron. One of the best-known species is called the blue crane, or blue heron. Since the sale of these feathers is prohibited in the United States, imitation numidi, generally made of burnt peacock, is the procurable variety on the market.

84. Osprey.—The term osprey is applied to an imitation aigrette that is not so soft as the genuine heron aigrette. It is made by burning off with acid the flues from the under-wing feathers of the osprey, a fish-hawk. Generally these blades are curled at the ends.

85. Ostrich Fancies.—The *ostrich fancy plume* shown in Fig. 56 is made of several blades of uncurled ostrich, used one on top of the other, the stem of the ostrich blades being covered with hackle feathers, which are pasted onto the stem of the ostrich fancy. Feathers of this sort come in different color combinations and result in very effective trimmings.

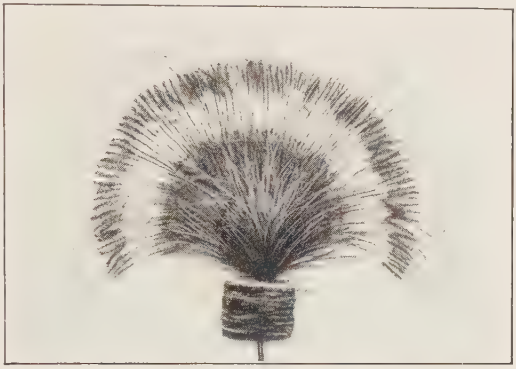


FIG. 57

86. Of an entirely different type is the *burnt ostrich fancy* featured in Fig. 57. Separate ostrich feathers have been arranged in semicircular fashion and pasted on a cambric-covered back. A portion of their flues have been burnt off with acid in a regular fashion in order to make a distinct design, and extra flues have been pasted at the base to form a finish. Below the semicircle is a square of buckram, its surface covered with flues of the ostrich, pasted smoothly to the buckram with their edges turned underneath.

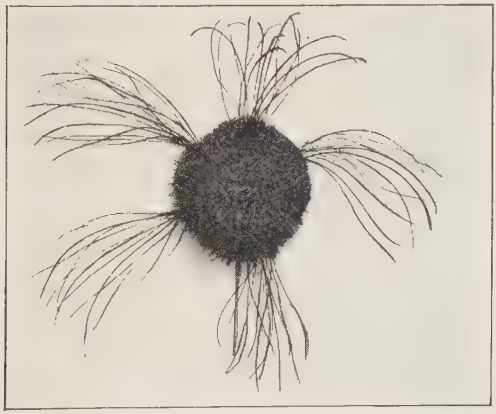


FIG. 58

87. Ostrich Pompon. The softest of all pompons are made from ostrich flues. Short flues are packed into small bunches with the ends wound securely. A dozen or more of these bunches are then wired together, the free ends of the flues being dipped so that the pompon is perfect in outline, thus accounting for the name *clipped-ostrich pompon*. Such a pompon is illustrated in Fig. 58, also in Fig. 52, the former having sprays of burnt goose, and the latter burnt peacock.

88. Ostrich Rose.—The ostrich fancy shown in Fig. 59 illustrates a unique manipulation of ostrich in the form of a full-blown rose. A buckram disc is used for the foundation, and for the center

FIG. 59

FIG. 60

a bunch of gilded stamens is attached to the center of the disc. The petals are then shaped around the stamens.

For these petals, an ostrich blade is split through the center and then cut in short lengths of different sizes. The stem portion is sewed to the disc and the ends of the flues are gathered together and drawn to one side and stitched in place to form a definite petal. The shorter flues are used for the inner portion and the longer ones around the outer edge.

FIG. 61

89. Ostrich Rosette.—The ornament shown in Fig. 60 is called a frilled ostrich rosette. It is made of a strip of ostrich fronds applied to a 2-inch cabochon. The outer edges of the fronds are twisted over a fine spool wire, forming a ripple. As a center finish, chenille cord is coiled around the cabochon.

90. Owl's Head.—A man-made owl's head is shown in Fig. 61. It is constructed of white goose feathers fastened to a buckram

foundation, the eyes and bill being made of small pieces of metal pressed into the proper form and then painted with black lacquer.

91. Paradise Aigrette.—The paradise aigrette, an example of which is shown in Fig. 62, is a genuine paradise plume taken from the male bird of paradise of New Guinea. It is one of the most expensive and elegant types of feather trimming used in millinery, and not lawful in the United States. The one shown in the illustration consists of several strands with their ends curled. These strands are held on silk-covered wires and spread, according to their sizes, in what is known as the fountain arrangement.

Paradise plumes in the natural state take the form of a wing. The natural colors of this feather are yellow or cedar brown, but the paradise plume dyed black or any color is extensively used.

Fig. 62

92. The *imitation paradise aigrette* shown in Fig. 63 is made of feathers taken from a barnyard fowl and soaked in acid to burn out part of the flues. They are then curled with a curling knife. The feathers at the base are shorter strands shaped in pompon fashion.

93. Peacock.—Because of its unusual plumage, the peacock maintains a place of distinction in the millinery world. Not only are the varicolored, eye-like, tail-and-wing coverlets in much demand, but also the iridescent, blue and green body feathers, which are soft and of beautiful sheen even after the various treatments to which they are subjected.

Fig. 64 illustrates a *natural peacock blade*. The coloring is iridescent, the fronds showing green, mulberry, and bronze, according to the light. The same colors, together with dark blue, true peacock blue, and brown make up the eye.

94. In the clipped ostrich pompon, Fig. 58, there are *burnt peacock fronds*, which, although dyed black, retain the glint of the natural fronds. Peacock feathers are the only ones that retain this glint after being dyed.

FIG. 63

Another use of burnt peacock is in the *peacock feather fancy* shown in Fig. 65. These peacock feathers have been dyed black, trimmed to the form shown, and painted white at the top to imitate coarse goura feathers.

95. Pheasant.—Among the handsomest plumage that is obtained for millinery use is the plumage of the male pheasant. The English pheasant has a splendid, varicolored tail, 18 inches long, neck feathers of lustrous sheen, and a head of brown and green feathers edged with yellow and a shimmer of green, blue, and deep orange.

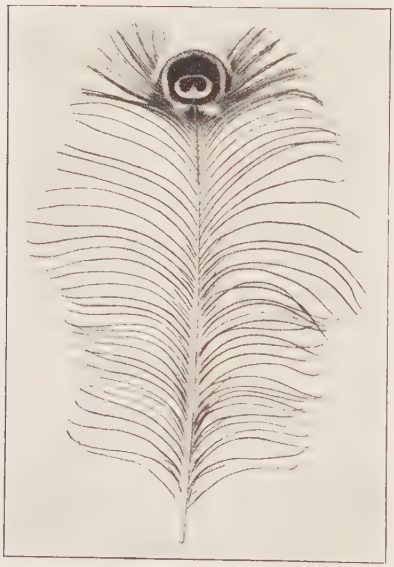


FIG. 64

Another type of pheasant, the golden pheasant, is a smaller bird, but is the most beautiful of the family. Orange and black encircle his neck, the rest of his plumage being golden except for some scarlet underneath. His golden feathers so resemble golden hair that the bird is thought by some to be the phoenix, or "golden-haired bird" that ancients believed visited Egypt once in 500 years and burned itself on an altar, from the ashes of

which a young bird arose. This species came from Asia and Europe.

From the domestic pheasant, come the brown and tan striped tail feathers that are in common use. There are copper, emerald, and peacock-blue glints to these feathers.

Partridge and *grouse* are closely related to the pheasant and their feathers are used in the same way and always subject to the state and game laws.

FIG. 65

96. In Fig. 66 is illustrated a man-made *pheasant breast, tail,* and *head.* The color is principally red-brown with black and green markings and a greenish, iridescent cast to the entire trim, particularly to the breast and the head. The bill is hollow and light—a piece of metal pressed into the proper shape and lacquered black. As pheasants may be killed, there are some cured pheasant breasts and heads on the market, but they are not so light and sanitary as are the man-made ornaments.

FIG. 66

Such tail feathers as are shown in the illustration are often used as a quill trimming.

97. Sea Gull.—A bird that furnishes feathers for millinery purposes is the sea gull, a long-winged, marine bird of white with some grayish and bluish feathers. The feathers have about the same quality as the feathers of the goose, duck, and cock, and are used for the same purposes.

98. Vulture.—The vulture is a large bird of prey whose wing feathers make handsome quills. The soft feathers are often treated with acid and glycerine and used for aigrette effects.

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